Immingham Green Energy Terminal

Environmental Impact Assessment

Preliminary Environmental Information Report

Volume II – Main Report

Chapter 5: EIA Approach

Associated British Ports

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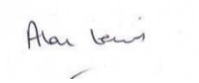
Signed		Date	20/12/2022
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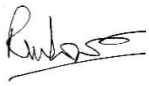
Signed		Date	20/12/2022
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5.1 Environmental Impact Assessment Approach and Scope

5.1.1 This Chapter in this PEI Report has been prepared to satisfy the requirements of Regulation 12 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) ('the EIA Regulations').

5.1.2 In preparing the PEI Report (in line with the EIA Regulations), reference has been made to the following guidance:

a. Planning Inspectorate Advice Note Three: *EIA Consultation and Notification* (Ref 5-1).

b. Planning Inspectorate Advice Note Seven: *Environmental Impact Assessment, Preliminary Environmental Information, Screening and Scoping* (Ref 5-2).

c. Planning Inspectorate Advice Note Nine: *Rochdale Envelope* (Ref 5-3).

d. Planning Inspectorate Advice Note Ten: *Habitats Regulations Assessment* (Ref 5-4).

e. Planning Inspectorate Advice Note Twelve: *Transboundary Impacts* (Ref 5-5).

f. Planning Inspectorate Advice Note Seventeen: *Cumulative Effects Assessment relevant to national significant infrastructure projects* (Ref 5-6).

g. Planning Inspectorate Advice Note Eighteen: *The Water Framework Directive* (Ref 5-7).

5.1.3 Reference has also been made to the Scoping Opinion received from the Secretary of State (SoS) on 10 October 2022 (**Appendix 1.B** PEI Report, Volume IV) and the advice contained within it regarding assessment methodology, topics and presentation of the final ES together with responses received through consultation and engagement. This PEI Report is consistent with the requirements set out in Regulation 14(3) of the Infrastructure Planning (EIA) Regulations 2017.

5.1.4 In response to the Scoping Opinion, the EIA of this Project and this PEI Report include assessments of the following environmental topics:

a. **Chapter 6: Air Quality**.

b. **Chapter 7: Noise and Vibration**.

c. **Chapter 8: Nature Conservation (Terrestrial Ecology)**.

d. **Chapter 9: Nature Conservation (Marine Ecology)**.

e. **Chapter 10: Ornithology**.

f. **Chapter 11: Traffic and Transport**.

g. **Chapter 12: Marine Transport and Navigation**.

h. **Chapter 13: Landscape and Visual Impact**.

i. **Chapter 14: Historic Environment (Terrestrial).**
j. **Chapter 15: Historic Environment (Marine).**
k. **Chapter 16: Physical Processes**.
l. **Chapter 17: Marine Water and Sediment Quality**.
m. **Chapter 18: Water Quality, Coastal Protection, Flood Risk and Drainage**.
n. **Chapter 19: Climate Change**.
o. **Chapter 20: Materials and Waste**.
p. **Chapter 21: Ground Conditions and Land Quality**.
q. **Chapter 22: Major Accidents and Disasters**.
r. **Chapter 23: Socio-Economics**.
s. **Chapter 24: Human Health and Wellbeing**.
t. **Chapter 25: Cumulative and In-Combination Effects**.

Overarching Approach

5.1.5 EIA is a process for identifying the likely significant environmental effects (positive and negative) of a proposed project to inform the decision-making process for development consent to be granted.

5.1.6 EIA aims to be a systematic, analytical, impartial, consultative and iterative process of identifying, evaluating and mitigating the likely significant environmental effects of a project. It promotes the early identification and evaluation of the likely significant effects and enables appropriate mitigation (that is, measures to avoid, reduce or offset significant adverse effects) to be identified and incorporated into the design of the development, or commitments to be made to environmentally sensitive construction methods and practices.

5.1.7 Typically, a number of design iterations take place in response to environmental constraints being identified and consultee feedback received during the EIA process prior to the final design being defined. This will be particularly important for the Project as the design and layout are still being refined, and changes may be made following submission of this PEI Report.

5.1.8 Where the approach has moved on from the Scoping Opinion this is explained in this PEI Report and Consultees are encouraged to provide feedback on how the scope has developed and is now defined.

5.1.9 The approach taken in preparation of this PEI Report has been informed by the Planning Inspectorate's Advice Note Seven (Ref 5-2) and reflects that the EIA Regulations (Ref 5-8) require an ES to focus on aspects of the environment likely to be subject to significant effects. Accordingly, this PEI Report, where appropriate, scopes out aspects/matters from further assessment with suitable justification provided. This streamlines the assessment to focus on key likely significant effects and ensures the assessment is proportionate in accordance with the Institute of Environmental Management and Assessment's (IEMA) Delivering Proportionate EIA (Ref 5-9) guidance document.

5.1.10 For the purposes of the EIA, the full capacity of the jetty, of up to 400 vessel calls per year, is assessed. Similarly the landside infrastructure to import ammonia from the jetty, store the ammonia and cover the ammonia into green hydrogen (see **Chapter 2: The Project)** is also assessed for the fully built operational development (all six phases).

5.2 PEI Report

5.2.1 This PEI Report presents a description of the Project and its likely significant environmental effects during construction, operation (including maintenance where relevant) and decommissioning (of the hydrogen production facility), based on the preliminary environmental information available at the time of its publication. The EIA process will continue and will be fully reported in the ES that will accompany the Development Consent Order (DCO) Application. It also details measures to avoid or reduce such effects and the alternatives considered.

5.2.2 This PEI Report summarises the outcome to date of the following ongoing EIA activities:

a. Scoping opinion.

b. Establishing baseline conditions.

c. Consultation with statutory and non-statutory consultees.

d. Consideration of relevant local, regional and national planning policies, guidelines and legislation relevant to the EIA.

e. Consideration of technical standards for the development of significance criteria and specialist assessment methodologies.

f. Design review.

g. Review of previous environmental studies, publicly available information, desktop studies and online databases.

h. Physical surveys and monitoring.

i. Desk-top studies.

j. Modelling and calculations.

k. Reference to current guidance.

5.2.3 These activities enable the prediction of impacts in relation to the current and future baseline, and a prediction based on the information available of the likely significance of effects on environmental receptors.

5.2.4 The term ‘impact’ refers to changes arising from the Project, whereas the term ‘effect’ is used to describe the result of the impact on a receptor.

5.2.5 Each technical chapter within this PEI Report (**Chapters 6 to 24**) follows the same structure for ease of reference, which is:

a. Introduction.

b. Approach to assessment.

c. Baseline conditions both existing and future

d. Potential impacts and effects.

e. Design, mitigation and enhancement measures.

f. Residual effects.

g. Summary of preliminary assessment.

5.3 Rochdale Envelope Parameters and Managing Design Uncertainty

5.3.1 With any large infrastructure project, such as Immingham Green Energy Terminal (IGET), the project design will continue to evolve to respond to design challenges, stakeholder views and the ongoing findings of the EIA process. The design will continue to develop in the lead-in to the application for development consent and will be further refined up until the start of construction. In order to account for these possible future changes and particularly for post consent change, in the EIA process (and therefore in the PEI Report) it is necessary to make a number of assumptions about what is termed a 'reasonable worst-case'.

5.3.2 Design uncertainty is addressed within the EIA and the PEI Report by adopting a precautionary approach to identifying significant environmental effects, through the establishment of a series of maximum development extents known as a 'Rochdale Envelope'.

5.3.3 The Rochdale Envelope arises from UK case law (Ref 5-10). It is an established principle that allows a number of parameters to be set to establish and envelope within which the project will be delivered so as to limit the potential scope of a project. Its adoption allows robust EIA to be undertaken by defining a reasonable worst-case scenario that decision-makers can consider when determining the acceptability or otherwise, of the environmental effects of a development project.

5.3.4 The principle is founded on the assumption that, as long as the technical and engineering design of a project fall within the limits of the envelope defined by parameters (including geographical and technical limits), and the EIA has considered the likely significant effects of a project coming forward within that envelope (based on the reasonable worst-case scenario), then flexibility within those parameters is deemed to be permissible within the terms of any consent granted for the project.

5.3.5 The reasonable worst-case scenario assumes that one or other of the parameters would have a more significant adverse effect than the alternative, and where a range of parameters is provided, the most environmentally detrimental parameter is assessed in the EIA. The worst-case scenario can differ between the environmental topics being assessed, and the environmental resources or receptors potentially affected.

5.3.6 Advice published by the Planning Inspectorate (Ref 5-3) fully endorses the approach of assessing design uncertainty, whilst still meeting the requirements of the EIA Regulations (Ref 5-8).

5.3.7 In line with this approach, parameters will be established across aspects relating to the design and construction of the Project to manage design uncertainty and provide flexibility for deviation where needed. For example, flexibility may be needed to enable minor design refinements to be made during construction by

the appointed contractor within the overall parameters of any consent granted and which would not produce different significant effects to those reported in the Environmental Statement (ES).

5.3.8 This approach to managing uncertainty within defined parameters and limits will ensure that the likely significant environmental effects of the final design or any design changes that may arise post submission of the DCO Application will have been assessed through the EIA.

5.3.9 In certain places the site boundary, as illustrated on **Figure 2.2** (PEI Report, Volume III), may be more extensive than the proposed draft Order Limits which are ultimately applied for within the DCO Application. This is because refinement of project design, e.g. such as for the required pipeline corridors, will continue through to the date of application for development consent.

5.4 Defining Study Areas: Spatial Scope of Assessment

5.4.1 The study area (or 'the spatial scope') for each environmental aspect, the area over which changes to the environment are predicted to occur as a consequence of the Project, depends on the nature of the potential effects and the location of receptors that could be affected. Study areas take account of:

a. The physical area and characteristics of the Project.

b. The nature of the existing and future baseline environment.

c. The manner and extent to which environmental effects may occur.

5.4.2 Each individual technical assessment of this PEI Report (**Chapters 6 to 24**) defines the study area to be considered and provides a rationale to support its selection, including consideration of the current baseline conditions such as the presence of any sensitive features and/or designations within, or adjacent to, the proposed study area. The study area of each assessment may be refined in response to comments from consultees or as a consequence of further assessment work.

5.5 Temporal Scope

5.5.1 The temporal scope covers the time period over which changes to the environment and the resultant effects are predicted to occur, and are typically defined as either being permanent or temporary:

a. Permanent – these are effects that would remain even when the Project is complete, although these effects may be caused by environmental changes that are permanent or temporary.

b. Temporary – these are effects that are related to environmental changes associated with a particular activity and that would cease when that activity finishes.

5.5.2 The assessment has regard to the Project programme and evaluates the environmental effects of the phased approach to construction and operation summarised in **Table 2.1** of **Chapter 2: The Project**. Further information on the phased development of the Project will emerge as the design progresses, and

the Applicant will review this to identify and confirm the worst-case construction and operational scenarios to be modelled and assessed in the EIA.

5.5.3 As stated in **Section 2.1** of **Chapter 2: The Project**, consideration of effects from decommissioning of the Project are considered within the EIA where necessary.

5.6 Characterisation of the Existing and Future Baseline Environment

5.6.1 To assess the potential environmental effects resulting from the Project, it is necessary to first establish the environmental conditions that currently exist within the vicinity of the Order Limits.

5.6.2 Appropriate understanding of the baseline for each technical environmental discipline is being collated through some or all of the following:

a. Review of secondary sources (desk-based, i.e. review of existing documentation and literature; data searches and available data sets such as GroundSure or EnviroCheck).

b. Review of primary baseline studies (field surveys).

c. Stakeholder consultation.

5.6.3 Existing baseline conditions have been defined for each technical assessment topic in **Chapters 6 to 24**, based on desk-based studies and site surveys undertaken to date, where necessary. It is also important to consider future baseline conditions (in the absence of the Project) against which the effects of the Project can be assessed.

5.6.4 The key data sources used to establish baseline conditions are described in each technical assessment chapter of the PEI Report (**Chapters 6 to 24**).

Baseline Conditions (including Future Baseline)

5.6.5 The 'existing baseline' date is 2022 since this is the period in which the baseline studies for the EIA are being undertaken. ‘Future baseline’ conditions are also predicted for each assessment scenario, whereby the conditions anticipated to prevail at a certain point in the future (assuming the Project does not progress) are identified for comparison with the predicted conditions with the Project. This can include the introduction of new receptors and resources into an area, or new development schemes that have the potential to change the baseline, where these constitute ‘committed developments’.

5.6.6 The assessment scenarios that are being considered for the purposes of the EIA (and considered in this PEI Report) are as follows:

a. Existing baseline (2022).

b. Future baseline (No Development) (up to Q2 2025).

c. Construction: construction of the Project could (subject to the necessary consents being granted) potentially start as early as Q2 2025 with the construction of the first berth of the jetty as part of the phase one construction works. Following the completion of Berth 1 infrastructure, the berthing trestle approach linking Berth 1 and Berth 2, including a Berth 2 approach trestle, would be constructed. Following completion of the first phase of the

hydrogen production facility, a further five phases would be constructed incrementally to increase the processing capacity as the market for green hydrogen increases. For the purposes of this PEI Report, a development scenario has been defined for the Project. This scenario is based on a six-phase construction timeline commencing in Q2 of 2025, through to full completion of all phases in 2035 (see **Chapter 2: The Project)**. However, it is important to note that, as with the two jetty berths, there could be pauses between the terrestrial phases depending on demand.

d. Opening and/or operation: assuming an approximate 11-year construction programme followed by a period of commissioning, the Project is unlikely to commence commercial operation before Q4 2027. The assessment years have been chosen by specialists as the reasonable worst-case for each topic.

e. Decommissioning: it is envisaged that the landside elements (the hydrogen production facilities) of the Project would have an operational life of up to approximately 25 years. On this basis, decommissioning activities of these landside elements are currently anticipated to commence after 2060. The marine infrastructure will not be decommissioned.

5.7 Environmental Effects

5.7.1 Environmental effects are the consequence of impacts. By way of example, an impact arising from a new pipeline project could be represented by the loss of mature woodland to accommodate a new section of pipeline and associated maintenance track, the effect (or consequence) of which could be the opening of new views in which this infrastructure becomes a focus point.

5.7.2 For an effect to occur there has to be a pathway between the impact and the resource or receptor.

5.7.3 In the EIA, effects are formulated as a function of the importance, value or sensitivity of an environmental resource or receptor, and the magnitude of impact (or change) predicted. A combination of professional judgement, defined thresholds, established criteria and standards are used in their definition within this PEI Report and will also be used within the ES.

5.7.4 The significance criteria presented in **Section 5.8** are used to report the significance of effects, the assignment of which will rely on reasoned argument, professional judgement, established thresholds and guidelines, and the views of relevant organisations.

5.7.5 Account is taken of the role of environmental mitigation measures, as discussed in **Section 5.9**, in reducing the significance of adverse effects.

5.8 Significance Criteria

5.8.1 For consistency, the methodology described in this section is applied across the assessed environmental topics within this PEI Report to ensure the identified environmental effects are assessed and evaluated in a comparable manner.

5.8.2 Variations from this approach will be applicable to specific environmental topics where other prevailing standards, thresholds and/or established criteria exist that require application. Where this is the case, an outline is provided in the technical assessment chapters (**Chapters 6 to 24**) of this PEI Report.

5.8.3 **Table 5.1** presents the generic guidelines for the sensitivity (or importance/value) of the resource or receptor that are applied within this PEI Report.

Table 5.1 Generic Guidelines for the Assessment of Sensitivity

Sensitivity (or importance/value)	Typical Descriptors
High	The resource or receptor has a very low capacity to accommodate the proposed form of change without fundamentally altering its present character; possesses key characteristics which contribute significantly to the distinctiveness, rarity and character of the site or receptor; is of international or national importance.
Medium	The resource or receptor has a low capacity to accommodate the proposed form of change without significantly altering its present character; possesses key characteristics which contribute significantly to the distinctiveness and character of the site or feature; is of regional or county importance.
Low	The resource or receptor has some tolerance to accommodate the proposed change without detriment to its character; possesses characteristics which are locally significant; is either not designated or is designated at a local or district level.
Very Low	The resource or receptor is generally tolerant and can accommodate the proposed change without detriment to its character; resource or receptor characteristics do not make a significant contribution to local distinctiveness; is not designated.

5.8.4 **Table 5.2** presents the generic magnitude of impact (or change) criteria that are applied within this PEI Report.

Table 5.2 Generic Guidelines for Determining the Magnitude of Impact (or change)

Magnitude of Impact (or change)	Typical Descriptors
High	The total loss or major change/substantial alteration to key elements/features of the current (pre-development) baseline conditions, such that the character/ composition/attributes of the baseline would be fundamentally changed post-development.
Medium	Loss or alteration to one or more key elements/features of the current (pre-development) baseline conditions, such that the character/ composition/attributes of the baseline will be materially changed post-development.

Magnitude of Impact (or change)	Typical Descriptors
Low	Noticeable or small-scale change in character/composition/ attributes of the current (pre-development) baseline conditions. Change arising would be discernible/detectable but not material post-development.
Very Low	Very small-scale change or barely discernible changes in character/composition/attributes of the current (pre-development) baseline conditions post-development.

5.1.2 Having established the magnitude of change and the sensitivity of the receptor, the significance of an effect can be assessed. Development proposals affect different environmental elements to varying degrees and not all of these are of sufficient concern to warrant detailed investigation or assessment within the EIA process. The EIA Regulations (Ref 5-8) identify those environmental resources that warrant investigation as those that are *"likely to be significantly affected by development"* (Schedule 4(4)).

5.8.5 The identification of effect significance typically requires the application of professional judgement; however the overarching significance matrix used in the EIA is shown in **Table 5.3**. The generic definitions that will be used to determine the level of effect significance are shown in **Table 5.4**. Reference is made to:

a. 'Major' effects, which would always be determined as being significant.

b. 'Moderate' effects can be significant based on specific scenarios and professional judgement.

c. 'Minor' or 'negligible' effects, which would always be deemed as 'not significant'.

d. Effects can be beneficial or adverse.

Table 5.3 Generic Significance Evaluation Matrix

		Magnitude of Change			
		Very Low	Low	Medium	High
Sensitivity of Receptor	High	Minor (not significant)	Moderate (potentially significant)	Major (significant)	Major (significant)
	Medium	Minor (not significant)	Minor (not significant)	Moderate (potentially significant)	Major (significant)
	Low	Negligible (not significant)	Minor (not significant)	Minor (not significant)	Moderate (potentially significant)
	Very Low	Negligible	Negligible	Minor	Minor

		Magnitude of Change			
		Very Low	Low	Medium	High
		(not significant)	(not significant)	(not significant)	(not significant)

Table 5.4 Generic Significance of Effect Description

Significance Category	Indicative Description
Major	Very large or large change in environmental conditions. Effects, both negative and positive, which are likely to be important considerations at a national to regional level because they contribute to achieving national or regional objective, or which are likely to result in exceedance of statutory objectives or breaches of legislation. These effects are considered to be very important considerations and are likely to be material in the decision-making process.
Moderate	Intermediate change in environmental conditions. Effects are likely to be important considerations at a regional or local level and important in informing the decision-making process.
Minor	Small change in environmental conditions that are unlikely to be critical in the decision-making process.
Negligible	No discernible change in environmental conditions. An effect that is likely to have a neutral or negligible influence.

5.8.6 In subsequent chapters of this PEI Report the general criteria described above have been made more specific for each environmental topic based on relevant standards and guidelines. Further explanation of the approach to assessing impacts and effects, and the specific criteria to be used for each topic is set out, with any deviation from this standard approach noted.

5.9 Environmental Measures

5.9.1 Consistent with Regulation 14(2)(c) of the EIA Regulations (Ref 5-8), the PEI Report includes a description of the "*measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment*".

5.9.2 For each environmental topic the EIA process systematically identifies impacts and effects and take into consideration environmental measures that the Project would adopt. These environmental measures include avoidance, best practice and design commitments as follows:

a. *Embedded Mitigation Measures:* modifications to the location, design or operation of a development made during the pre-application phase that are an inherent part of the Project and do not require additional action to be taken.

b. *Standard Mitigation Measures:* measures comprising management activities and techniques, which would be implemented during construction of the

Project to limit impacts through adherence to good site practice and achieving legal compliance.

c. *Additional Mitigation Measures:* these comprise measures over and above any embedded and standard mitigation measures, for which the EIA has identified a requirement to further reduce significant environmental effects.

5.9.3 When such measures form an integral part of the Project design (i.e. embedded mitigation and standard mitigation) and/or the approach to its construction, the assessment of likely significant effects only reports the post-mitigation effects within this PEI Report.

5.9.4 Where additional mitigation measures are identified, the PEI Report reports both pre- and post-mitigation effects in order to demonstrate their efficacy in further reducing the significance of effects and will explain how such measures will be secured.

5.9.5 Following the identification of environmental measures, the assessment of effect significance is re-evaluated to determine whether there is likely to be a residual effect and if it remains significant. Residual effects assessed as Moderate or Major after consideration of environmental mitigation measures normally require additional analysis and consultation to further mitigate them, where feasible. Where further mitigation is not possible a significant residual effect may remain.

5.9.6 At ES stage a separate Register of Environmental Actions and Commitments (REAC) document will be prepared to summarise the environmental measures committed to within the ES.

5.9.7 An outline Construction Environmental Management Plan (CEMP) will be prepared and submitted with the DCO Application which will contain the Register of Environmental Actions and commitments (REAC), so far as relevant to construction, as well as other effective, site-specific procedures required during construction, details of identified monitoring and auditing of mitigation as required. This document will then be further developed once the contractor is appointed. A requirement within the DCO will ensure that those measures included in the outline CEMP are legally secured for implementation.

5.10 Cumulative and In Combination Effects

5.10.1 As required by the EIA Regulations, consideration is given to the potential for cumulative and combined effects to arise as a result of the Project.

5.10.2 Cumulative effects are those that accrue over time and space from a number of development activities. The impact of the Project will be considered in conjunction with the potential impacts from other projects or activities which are reasonably foreseeable in terms of delivery. This includes projects for which applications for development consent and/or planning permission have been submitted but have not yet been approved and projects that have planning permission or development consent that are located within a geographical scope where environmental impacts could act together to create a more significant overall effect on a receptor and where sufficient environmental information is available.

5.10.3 In Combination (or Combined) effects are those resulting from a single development, in this case the 'Project', on any one receptor that may collectively cause a greater effect (such as the combined effects of noise and air quality/dust impact during construction on local residents). Cumulative and In Combination effects are discussed in **Chapter 25: Cumulative and In Combination Effects**.

5.11 Transboundary Effects

5.11.1 Initial consideration has been given to Regulation 32 of the Infrastructure Planning (EIA) Regulations 2017 (Ref 5-8) and the Planning Inspectorate *Advice Note 12: Transboundary Impacts* (Ref 5-5) and specifically Annexes A and B, which set out the criteria and relevant considerations taken into account by the Planning Inspectorate when screening Nationally Significant Infrastructure Projects (NSIP) for likely significant effects on the environment in another European Economic Area (EEA) state.

5.11.2 The nearest EEA states are the Republic of Ireland at over 385km west and the Netherlands at over 330km east of the Project Site. Taking into account the potential pollution impact pathways through air, land and water, and the effects predicted to arise from the Project, set out in **Chapter 6: Air Quality**, **Chapter 8: Nature Conservation (Terrestrial Ecology)**, **Chapter 17: Marine Water and Sediment Quality** and **Chapter 18: Water Quality, Coastal Protection, Flood Risk and Drainage** within their respective spatial scopes, the likelihood of significant effects on the environment of another EEA state is considered negligible. Therefore, significant transboundary effects associated with the Project are not anticipated or assessed and have been scoped out.

5.12 Consultation and Engagement

5.12.1 The Project has a wide range of stakeholders with differing interests that will require varied levels of consultation. Specific communication activities therefore need to be undertaken to meet the needs of specific individuals and groups. This requires an understanding of the stakeholders and their interests in the Project.

Pre-application Consultation

5.1.3 Sections 42 and 47 of the PA2008 (Ref 5-11) requires the Applicant to undertake pre-application consultation with a range of prescribed consultees. The key stakeholders to be consulted as part of the pre-application process include:

a. Prescribed statutory bodies.

b. Local authorities.

c. Landowners/those with interests in the land.

d. Local communities.

e. Other key interest groups.

5.12.2 In addition to statutory consultation with prescribed consultees, as best practice, applicants are also encouraged to engage in non-statutory consultation with all potentially affected parties to enable them to gain a better understanding of the Project. Local knowledge and understanding is important, and the Applicant is

engaging with consultees through both formal consultation and informal engagement prior to submission of the DCO Application.

5.12.3 Consultation and engagement with stakeholders helps to inform the preparation of key materials as part of the EIA in support of the pre-application DCO process.

5.12.4 A Consultation Report will form part of the DCO Application and will summarise how pre-application consultation was undertaken and set out how feedback received, including the feedback on the content of this PEI Report, was taken into account by the Applicant.

Technical Engagement

5.12.5 In addition to the stages of pre-application consultation, the Applicant will hold informal engagement with the key prescribed consultees, as appropriate, to refine the Project and the EIA and to assist in the development of any required mitigation or other environmental measures. Specific information on this is presented in the environmental topic chapters (**Chapters 6 to 24**).

5.12.6 A summary of technical stakeholder engagement is summarised within the individual technical chapters within this PEI Report. In addition, the Applicant will seek to agree draft Statements of Common Ground with key stakeholders to set out matters that have been agreed prior to submission of the DCO Application.

5.13 Assumptions and Limitations

5.13.1 Each technical chapter of the PEI Report sets out any assumptions made and limitations encountered whilst undertaking and reporting the respective assessments.

5.14 Other Assessment Requirements

5.14.1 At this stage in the process, the need to undertake a range of other assessments to inform the EIA, and/or other consent requirements has been identified. The following assessments will be undertaken and reported at the ES stage.

Habitat Regulations Assessment

5.14.2 In accordance with Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive') (Ref 5-12) and Directive 2009/147/ES of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the 'Birds Directive') (Ref 5-13), a network of protected sites has been designated by EU member states for the protection of Europe's most valuable and threatened habitats and species. These areas are known as European sites. The Conservation of Habitats and Species Regulations 2017 (SI 2017 No. 1012) (the 'Habitats Regulations') transpose the EU Directives into UK law (Ref 5-14) and remain in place following the UK's exit from the EU.

5.14.3 When assessing the DCO Application, the SoS (as a competent authority under the Habitats Regulations) must consider the potential for a likely significant effect (LSE) on a European site. European sites are defined as Special Area of Conservation (SAC), candidate SACs, Sites of Community Importance (SCI) and

Special Protection Areas (SPA). UK policy extends the requirements pertaining to European sites to include Ramsar sites and potential SACs and SPAs, which include proposed extensions or alterations to existing SPAs.

5.14.4 If it is concluded that the Project has the potential for a Likely Significant Effect (LSE) on a European site, an Appropriate Assessment (AA) of the implications of the proposals in light of the site's conservation objectives will be required. An AA will take account of the LSE of the Project on the protected areas, either alone or in combination with other plans and projects. The screening, any AA and any subsequent assessment form part of what is known as the Habitats Regulations Assessment (HRA) process.

5.14.5 To facilitate the HRA process, the Applicant will provide information within the DCO Application to enable an AA to be undertaken and will liaise with Natural England and other relevant parties on its preparation, as required.

5.14.6 A Screening Report for the HRA for the Project is appended to **Chapter 9: Nature Conservation (Marine Ecology)** (**Appendix 9.C** PEI Report, Volume IV).

Flood Risk Assessment

5.14.7 A Flood Risk Assessment (FRA) will be submitted with the DCO Application. The FRA will assess the flood risk both to and from the Project and demonstrate how that flood risk will be managed over the Project's lifetime. The FRA will give due regard to climate change and will form an appendix to the ES.

Marine Plan and Policy Conformance Assessment

5.14.8 As the Project falls within the area covered by the East Inshore Marine Plan (Ref 5-15) a marine plan and policy conformance assessment will be required to support the application for a deemed marine licence for the Project.

5.14.9 This assessment will be undertaken to review the Project against the vision, objectives and policies of the East Inshore Marine Plan and will be informed by the information provided in the ES.

Navigational Risk Assessment

5.14.10 Given the nature of the Project, a Navigational Risk Assessment (NRA) will be undertaken to meet the requirements of the Port Marine Safety Code (PMSC) and will be provided within the DCO Application.

5.14.11 In reviewing the application, navigational risk will be a consideration by the Harbour Authority in its role as Statutory Harbour Authority (SHA). As part of the NRA process, a hazard identification workshop will be held with relevant navigational stakeholders for the area to identify the potential impacts associated with the Project.

5.14.12 The NRA will determine the likely risk to navigational safety and, if necessary, establish risk control measures to reduce that risk to be 'as low as reasonably practicable'.

5.14.13 The outputs from the NRA will inform **Chapter 12: Marine Transport and Navigation** of the ES and the NRA will form an appendix to the ES. The PEI Report in respect of this topic is provided in **Chapter 12: Marine Transport and Navigation**.

Water Framework Directive Assessment

5.14.14 A Water Framework Directive (WFD) assessment (Ref 5-16) will be undertaken and will consider activities in the marine environment up to one nautical mile out to sea.

5.14.15 A WFD assessment will form an appendix to the ES. The assessment will involve up to three stages:

a. Screening – excludes any activities that do not need to go through the scoping or impact assessment stages.

b. Scoping – identifies the receptors that are potentially at risk from an activity and the need for impact assessment.

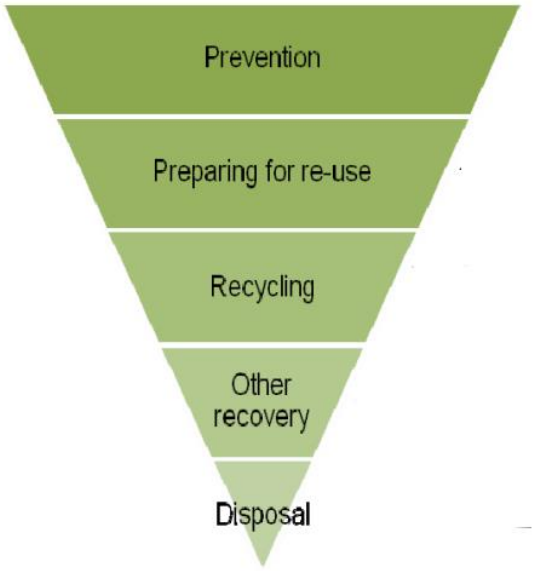
c. Impact assessment – considers the potential impacts of activities, identifies ways to avoid or minimise impacts, and shows if activities may cause deterioration or jeopardise the water body achieving good status.

Waste Hierarchy Assessment

5.14.16 Defra outline in the *Guidance on Applying the Waste Hierarchy* (Ref 5-17) document that “the waste hierarchy” ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal (e.g. landfill).”

5.14.17 The Project will undergo a Waste Hierarchy Assessment (WHA) to determine the Best Practical Environmental Option (BPEO) for dealing with dredge arisings. This assessment will involve an evaluation of the dredge and disposal methods likely to be involved and will follow the waste hierarchy outlined in **Plate 5-1**.

Plate 5-1 Waste Hierarchy Waste Management Options



5.14.18 The impacts of any waste generated by the landside facilities will also be evaluated as part of the ES.

5.15 References

Ref 5-1 The Planning Inspectorate (2017). *Advice Note Three: EIA Consultation and Notification* (Version 7).

Ref 5-2 The Planning Inspectorate (2020). *Advice Note Seven: Environmental Impact Assessment, Preliminary Environmental Information, Screening and Scoping* (Version 7).

Ref 5-3 The Planning Inspectorate (2018). *Advice Note Nine: Rochdale Envelope* (Version 3).

Ref 5-4 The Planning Inspectorate (2022). *Advice Note Ten: Habitats Regulations Assessment relevant to Nationally Significant Infrastructure Projects* (Version 9).

Ref 5-5 The Planning Inspectorate (2020). *Advice Note Twelve: Transboundary Impacts and Process* (Version 6).

Ref 5-6 The Planning Inspectorate (2019*). Advice Note Seventeen: Cumulative Effects Assessment* (Version 2).

Ref 5-7 The Planning Inspectorate (2017). *Advice Note Eighteen: The Water Framework Directive* (Version 1).

Ref 5-8 UK Government (2017). *The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017*.

Ref 5-9 IEMA (2017). *Delivering Proportionate EIA.*

Ref 5-10 R.V. Rochdale MBC ex parte Milne (No. 1); and R. V. Rochdale MBC ex parte Tew [1999] and R. v. Rochdale MBC ex parte Milne (No. 2) [2000].

Ref 5-11 UK Government (2008). Planning Act 2008.

Ref 5-12 The European Community (1992). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')

Ref 5-13 European Parliament (2009). Directive 2009/147/EC of the European Parliament and of the Council.

Ref 5-14 UK Government (2017). The Conservation of Habitats and Species Regulations 2017.

Ref 5-15 Maritime Management Organisation (2016). East Inshore and East Offshore Marine Plans.

Ref 5-16 Environment Agency (2017) Water Framework Directive assessment: estuarine and coastal waters.

Ref 5-17 Department for Environment, Food and Rural Affairs (Defra) (2011). Guidance on applying the Waste Hierarchy.

5.16 Abbreviations and Glossary of Terms

Table 5.5 Abbreviations and Glossary of Terms

Term	Acronym	Meaning
Appropriate Assessment	AA	The assessment of the impact on the integrity of a European site of a project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives.
Baseline environment	-	The environment as it appears (or would appear) immediately prior to the implementation of the project together with any known or foreseeable future changes that would take place before completion of the project.
Best Practical Environmental Option	BPEO	The Best Practical Environmental Option is the idea that there is a unique, supremely beneficial method of disposing wastes in a cost-effective manner, in both the short and long term.
Combined effect	-	A type of cumulative effect which occurs when different types of activity combine to have an effect on a specific receptor or resource.
Construction Environmental Management Plan	CEMP	A Construction Environmental Management Plan describes the specific mitigation measures to be followed by the appointed construction contractor to reduce potential nuisance impacts.
Cumulative effect (or impact)	-	A cumulative impact (or effect) may arise as the result of: The combined impact of a number of different environmental topic-specific impacts from a single environmental impact assessment project on a single receptor/ resource. The combined impact of a number of different projects within the vicinity (in combination with the environmental impact assessment project) on a single receptor/ resource.
Development Consent Order	DCO	The consent for a Nationally Significant Infrastructure Project required under the Planning Act 2008.
Department for Environment, Foods and Rural Affairs	Defra	The Government department responsible for policy and regulations on environmental, food and rural issues.

Term	Acronym	Meaning
European Economic Area	EEA	Free-trade zone created in 1994, composed of the states of the European Union together with Iceland, Norway, and Liechtenstein.
Environmental Impact Assessment	EIA	The statutory process through which the likely significant effects of a development project on the environment are identified and assessed.
Environmental Statement	ES	A statutory document which reports the EIA process, produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.
Flood Risk Assessment	FRA	The process of assessing potential flood risk to a site and identifying whether there are any flooding or surface water management issues that may warrant further consideration or may affect the feasibility of a project.
Future baseline	-	The likely evolution of the current state of the environment without implementation of the project.
Habitats Regulations Assessment	HRA	An assessment of projects (or plans) potentially affecting European Sites in the UK, required under the Habitats Directive and Regulations. Also known as an assessment of implications on European Sites.
Institute of Environmental Management and Assessment	IEMA	A professional body for practitioners working in the fields of environmental management and assessment.
Immingham Green Energy Terminal	IGET	A multi-user liquid bulk jetty, located on the eastern side of the Port of Immingham,
Kilometre	km	A unit of measurement.
Likely Significant Effect	LSE	Schedule 4 of the Regulations requires an environmental statement to include a description of the likely significant effects of the development on the environment.
Nationally Significant Infrastructure Project	NSIP	A type of project listed in the Planning Act 2008, which must be consented by a Development Consent Order.
Navigational Risk Assessment	NRA	A Navigational Risk Assessment identifies and assesses the hazards and risks affecting vessel navigation.
Order Limits	-	The extent of the area within which the Scheme may be carried out.

Term	Acronym	Meaning
Preliminary Environmental Information	PEI	The information referred to in Part 1 of Schedule 4 of the EIA Regulations that has been reasonably compiled by the applicant and is reasonably required to assess the environmental effects of a project.
Port Marine Safety Code	PMSC	This is a safety code for harbour authorities with statutory powers and duties in the UK and sets out a national standard for port marine safety.
Register of Environmental Actions and Commitments	REAC	A register of environmental actions and commitments which is based on mitigation as defined in the Environmental Statement.
Rochdale Envelope	-	An approach to consenting and Environmental Impact Assessment, named after a UK planning law case, which allows the promoters of projects to broadly define their schemes within agreed parameters to retain flexibility of design.
Secretary of State	SoS	The head of a major government department, who is ultimately responsible for granting consent for relevant Nationally Significant Infrastructure Projects.
Spatial scope	-	The geographic area over which environmental impacts and effects could occur as a result of a project.
Special Area of Conservation	SAC	Sites designated under EU legislation for the protection of habitats and species considered to be of European interest.
Site of Community Importance	SCI	Site of Community importance means a site which, in the biogeographical region or regions to which it belongs, contributes significantly to the maintenance or restoration at a favourable conservation status of a natural habitat type in Annex I or of a species in Annex II.
Special Protection Area	SPA	Sites designated under the European Directive on the Conservation of Wild Birds for the protection of birds in member states.
Statutory Harbour Authority	SHA	A statutory body responsible for the management and running of a harbour. The powers and duties in relation to a harbour are set out in either local Acts of Parliament or a Harbour Order.
Temporal scope	-	The duration of time over which environmental impacts and effects could occur as a result of a project.

Term	Acronym	Meaning
Transboundary effects	-	The term used to describe the significant environmental effects of a project which extend beyond the boundary of the European Economic Area State within which it would be implemented.
Waste Framework Directive	Waste FD	The Waste Framework Directive sets the basic concepts and definitions related to waste management, including definitions of waste, recycling and recovery
Waste Hierarchy Assessment	WHA	If required, this assessment will involve an evaluation of the dredge and disposal methods likely to be involved and will follow the waste hierarchy of Prevention, Preparing for re-use, Recycling, Other Recovery or Disposal.
Waste and Resources Action Programme	WRAP	The Waste Resources Action Programme is a British registered charity working with businesses, individuals and communities to achieve a circular economy.
Water Framework Directive Assessment	WFD	Assessment to identify how the project has the potential to affect each of the water body's quality/ quantity elements and whether it could lead to non-compliance with the Water Framework Directive.