



Immingham Green Energy Terminal

TR030008

Volume 6

6.2 Environmental Statement

Chapter 13: Landscape & Visual Impact

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Regulation 5(2)(a)

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Forms and Procedure) Regulations 2009 (as
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Immingham Green Energy Terminal

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6.2 Environmental Statement

Chapter 13: Landscape & Visual Impact

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13. Landscape and Visual Impact

13.1 Introduction

- 13.1.1 This chapter presents the findings of the assessment of the likely significant effects of the Project on landscape, which encompasses both landscape and seascape character (as a resource in its own right) and visual amenity.
- 13.1.2 As there are interrelationships between the landscape and visual impacts and other disciplines, reference should be made to the following chapter:
- a. **Chapter 8: Terrestrial Ecology [TR030008/APP/6.2].**
- 13.1.3 A detailed description of the Project which includes an indicative construction phasing timeline, Project components, and parameters relating to the proposed maximum building heights, is included within **Chapter 2: The Project [TR030008/APP/6.2].**
- 13.1.4 This chapter is supported by the following figures **[TR030008/APP/6.3]** and appendices **[TR030008/APP/6.4].**

Figures

- a. **Figure 13.1:** Project Location and Study Area.
- b. **Figure 13.2:** Zone of Theoretical Visibility – Bare Earth.
- c. **Figure 13.3:** Zone of Theoretical Visibility – Visual Screening.
- d. **Figure 13.4:** Landscape Character Areas – National and Regional.
- e. **Figure 13.5:** Landscape Character Areas – Local.
- f. **Figure 13.6:** Designations.
- g. **Figure 13.7:** Viewpoint Locations.
- h. **Figure 13.8.1 - 13.8.13:** Summer Viewpoint Photography.
- i. **Figure 13.9.1 – 13.9.13:** Winter Viewpoint Photography.
- j. **Figure 13.10.1 – 13.10.6:** Photomontages.

Appendices

- a. **Appendix 13.A** Landscape and Visual Assessment Methodology.
- b. **Appendix 13.B** Landscape Character Baseline.

13.2 Consultation and Engagement

- 13.2.1 A scoping exercise was undertaken in August 2022 to establish the scope of the EIA including the methodology and approach of the landscape and visual impact assessment to be followed. The Scoping Report (**Appendix 1.A [TR030008/APP/6.4]**) records the findings of the scoping exercise and details the technical guidance, standards, best practice and criteria being applied in the assessment to identify and evaluate the likely significant effects of the Project on

the landscape and visual environment. A Scoping Opinion was adopted by the Secretary of State for Transport on 10 October 2022 [TR030008/APP/6.4].

- 13.2.2 The first Statutory Consultation took place between 9 January and 20 February 2023 in accordance with the Planning Act 2008 (“2008 Act”). The Applicant prepared a Preliminary Environmental Information Report (PEI Report), which was publicised at the consultation stage.
- 13.2.3 Through consideration of the responses to the first Statutory Consultation, the developing environmental assessments and through ongoing design-development and assessment, a series of changes within the Project were identified. A second Statutory Consultation took place between 24 May and 20 July in accordance with the 2008 Act and a PEI Report Addendum was publicised to support the consultation.
- 13.2.4 The consultation undertaken with statutory consultees to inform this chapter, including a summary of comments raised via the formal Scoping Opinion (**Appendix 1.A [TR030008/APP/6.4]**) and in response to the formal consultation and other pre-application engagement is summarised in **Table 13-1**. The full responses to consultation comments are included within the **Summary of Consultation Responses** document [TR030008/APP/5.1].

Table 13-1: Consultation Summary Table

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
Scoping Report August 2022	Planning Inspectorate (“PINS”)	<p>The Scoping Report seeks to scope out this matter [operational landscape and seascape effects] on the grounds that because of the existing industrial character of the area and the immediate surrounding area, landscape and seascape effects during the operational phase would be insignificant. The Inspectorate does not agree that this matter can be scoped out of further assessment and advises the Applicant to provide a comprehensive project description in the ES which includes the maximum dimensions of all the structures associated with the Proposed Development and visual representations to give the Examining Authority confidence that no significant environmental effects would arise.</p>	<p>Landscape and seascape effects during operation are assessed within this Environmental Statement (“ES”) chapter at Section 13.8.</p> <p>Schedule 1 of the draft Development Consent Order (“draft DCO”) [TR030008/APP/2.1] lists the key buildings and structures contained in the Project and the maximum heights of the permanent built elements are set out within the parameters section of Chapter 2: The Project [TR030008/APP/6.2].</p> <p>Photomontages have been prepared at locations where significant visual effects have been identified and on the edge of Immingham town. Refer to Figure 13.10.1 to 13.10.4 [TR030008/APP/6.3].</p>
		<p>Design measures to reduce the landscape and visual impacts of the Proposed Development are to be considered, such as lighting design. The ES should include a night-time character assessment prepared in co-ordination with a lighting assessment, demonstrating how the lighting design has been developed to minimise impacts.</p>	<p>Night-time baseline conditions are included in this ES at Section 13.6 and night-time assessments for each character area and viewpoint are included in Section 13.8.</p> <p>A lighting assessment has been undertaken and is included in the ES, Appendix 2.B [TR030008/APP/6.4].</p>

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
		The ES should include photomontages from representative viewpoints to support the visual impact assessment, including from Immingham Town. Photomontages should be prepared in line with relevant Landscape Institute guidance and viewpoints should be agreed with consultation bodies where possible.	<p>North East Lincolnshire Council (“NELC”), North Lincolnshire Council (“NLC”) and East Riding of Yorkshire Council (“ERYC”) were consulted on the appropriate viewpoints (refer to stakeholder engagement (August 2022) within the table below for details of the responses obtained). The photomontages were prepared in line with Landscape Institute Technical Guidance Notes and other relevant legislation, policy and guidance as listed in Table 13-2.</p> <p>Photomontages have been prepared from locations from which likely significant visual effects are identified and from the edge of the residential areas within Immingham Town and illustrated on Figure 13.10.1 to 13.10.6 [TR030008/APP/6.3].</p>
	Natural England	Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography.	<p>Character areas located within the study area are outlined within Appendix 13.B – Landscape Character Baseline [TR030008/APP/6.4]. Landscape effects are assessed within Section 13.8 and illustrated on Figure 13.4 and Figure 13.5 [TR030008/APP/6.3].</p>
		The England Coast Path (ECP) is a new National Trail that will extend around all of	The proposed England Coast Path (“ECP”), of which Bridleway 36 will form part, is considered

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
		<p>England's coast with an associated margin of land predominantly seawards of this, for the public to access and enjoy. Natural England takes great care in considering the interests of both land owners/occupiers and users of the ECP, aiming to strike a fair balance when working to open a new stretch. We follow an approach set out in the approved Coastal Access Scheme and all proposals have to be approved by the Secretary of State. We would encourage any proposed development to include provision for the England Coast Path, where appropriate, to maximise the benefits this can bring to the area. This should not be to the detriment of nature conservation, historic environment, landscape character or affect natural coastal change. Consideration for how best this could be achieved should be made within the Environmental Statement.</p>	<p>further within Chapter 23: Socio-Economics [TR030008/APP/6.2]. A temporary diversion of Bridleway 36 during Phase 1 of the construction of the Project would be provided to ensure continuity of access to the sea wall. Bridleway 36 would be reinstated upon completion of this construction phase and no impacts are expected on the future England Coast Path.</p> <p>Landscape effects are assessed within Section 13.8.</p> <p>Visual effects, including views from the proposed England Coast Path, are assessed within Section 13.8.</p>
<p>Stakeholder Engagement August 2022</p>	<p>North East Lincolnshire Council (NELC), North Lincolnshire Council (NLC) and East Riding of Yorkshire Council (ERYC)</p>	<p>NLC was in agreement with the selection of viewpoints and suggested an additional viewpoint to the north to represent views from the England Coast Path.</p> <p>No response from NELC or ERYC.</p>	<p>Visual effects, including views from the proposed England Coast Path, are assessed within Section 13.8.</p> <p>Additional viewpoint added at Public Right of Way ("PRoW") SKIL50, located within the administrative boundary of NLC and referenced as Viewpoint 10 and illustrated at Figure 13.8.12 (Summer scenario) and Figure 13.9.12 (winter scenario) [TR030008/APP/6.3].</p>

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
Statutory Consultation January 2023	Humber Conservation	Requested details of the provisions that will be made to protect Long Strip and public footpath.	<p>The pipeline corridor connecting the East Site to the Jetty as well as the Jetty Access Road (Work No. 2) would be situated within this woodland belt. Through an iterative design process, the Applicant has sought to minimise loss of the trees within this area. The proposed design includes techniques that enable the width of the construction areas, where practicable, to be reduced, for example by the vertical stacking of pipes on a supporting rack/structure in this location.</p> <p>The loss of part of the woodland from Long Strip is fully assessed in Appendix 8.F Arboriculture Impact Assessment [TR030008/APP/6.4], ES Chapter 8: Nature Conservation (Terrestrial Ecology [TR030008/APP/6.2] and this Chapter]. Approximately 0.64ha of woodland will be removed from the Long Strip woodland, which represents 40% of that part of the Tree Preservation Order (“TPO”) north of Laporte Road.</p> <p>An Outline Woodland Compensation Strategy [TR030008/APP/6.8] has been prepared to set out the approach to management and enhancement of retained non-impacted sections of Long Strip woodland, and outline plans for the creation and long-term management of replacement woodland habitat, to provide compensation (in the long term) for permanent woodland loss associated with the Project within</p>

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
			<p>Long Strip Woodland and will be secured by requirement of the draft DCO.</p> <p>The right of way through Long Strip comprises Bridleway 36, which will be temporarily diverted from Laporte Road to the sea wall during Phase 1. This is to enable the construction of works in this area and the use of the temporary construction area on the arable field to the east. Bridleway 36 would be re-opened on its existing alignment after the construction of phase 1. This is described in ES Chapter 2: The Project [TR030008/APP/6.2] and the impacts on the Bridleway are assessed in ES Chapter 23: Socio-Economics [TR030008/APP/6.2].</p>
	Humber Nature Partnership	<p>Requested consideration in relation to Long Strip woodland in terms of local history and landscape considerations, as well as the England Coast Path.</p> <p>Suggested that the woodland could be protected and the installations run along the adjacent Temporary Construction Area, with BW36 and the ECP similarly and permanently accommodated therein. Stated that the TCA (Temporary Construction Area) is large enough to provide beneficial mitigation and BNG considerations for this and other projects.</p>	<p>Landscape effects on the Long Strip Woodland are assessed within this chapter at Section 13.8 and illustrated on Figure 13.4 and Figure 13.5 [TR030008/APP/6.3].</p> <p>Comments in relation to the potential to retain the Long Strip woodland and the alignment of Bridleway 36 are provided above in the response to comments raised by Humber Conservation.</p> <p>The Temporary Construction Area (Work No. 9) will only be used temporarily for Phase 1 of construction and would then be reinstated to its existing arable use and returned to the landowner.</p>

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
	Forestry Commission	In relation to climate change, the Forestry Commission recommended that biosecurity, tree health, and woodland resilience is considered for all new planting that is associated with the proposed development.	<p>An Outline Woodland Compensation Strategy [TR030008/APP/6.8] and Outline Landscape and Ecology Management Plan (“Outline LEMP”) [TR030008/APP/6.9] have been prepared.</p> <p>A review of the landscape and biodiversity opportunities within the various parts of the Project shown on the Works Plans [TR030008/APP/4.2] (Work Plans) has been carried out and is included within the Outline LEMP and illustrated on Figure 1 Indicative Landscape and Biodiversity Plan [TR030008/APP/6.9].</p> <p>Due to the limited opportunities for planting within the operational site boundaries, the main focus is on the off-site planting of trees in the Immingham area on land within the applicant’s ownership and the management, and enhancement of retained non-impacted sections of Long Strip Woodland as outlined within the outline Woodland Compensation Strategy.</p> <p>The Outline Woodland Compensation Strategy [TR030008/APP/6.8] would require that new planting broadly reflects the tree species that would be lost from the Long Strip and will follow the principles adopted within local tree planting guidance. It would also require that new planting considers provenance and that species would be selected for long-term value and</p>

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
			<p>resilience to climate change. It is considered unlikely that Ash trees, which form a proportion of the existing trees in the woodland, would be included in the strategy, unless strains resilient to Ash dieback (<i>Hymenoscyphus fraxineus</i>) can be identified.</p>
	<p>North East Lincolnshire Council</p>	<p>The applicants have been working with NELC Trees and Landscape to look at initial high level issues;</p> <ul style="list-style-type: none"> Requested further consultation on the extent of tree removal required to implement the scheme and a landscape proposals plan which aims to improve the visual amenity on the periphery of the Project. 	<p>The extent of tree removal is presented in the Arboricultural Impact Assessment at Appendix 8.F the ES [TR030008/APP/6.4].</p> <p>As above an Outline Woodland Compensation Strategy [TR030008/APP/6.8] and Outline LEMP [TR030008/APP/6.9] have been prepared. There is limited opportunity for landscape proposals due to the constraints of the Project and requirement for secure boundaries, however, options for landscape and biodiversity areas within the Work Areas are included within the Outline LEMP and illustrated on Figure 1 Indicative Landscape and Biodiversity Plan [TR030008/APP/6.9].</p> <p>The Outline LEMP defines the opportunities which are available within the operational site boundaries to provide landscape and ecological measures to enhance the operational layout.</p> <p>The Outline Woodland Compensation Strategy sets objectives for the management and enhancement of retained non-impacted sections of Long Strip Woodland and outline plans for the creation and long-term management of</p>

Reference/Date	Consultee	Summary of Response	How comments have been addressed in this chapter
			replacement woodland on land within the applicant's ownership.
	Local Resident (living within approx. 10km of the Project)	The outlook/views residents currently enjoy to the south east will be compromised with the numerous sized stacks planned for the plants on the East and West of the development.	<p>Landscape and seascape effects during operation are assessed within this ES chapter at Section 13.8.</p> <p>Schedule 1 of the draft DCO [TR030008/APP/2.1] lists the key buildings and structures contained in the Project and the maximum heights of the permanent built elements are set out within Chapter 2: The Project [TR030008/APP/6.2].</p> <p>Photomontages have been prepared at locations (i) where significant visual effects have been identified as likely and (ii) from the edge of Immingham town. Refer to Figure 13.10.1 to 13.10.4 [TR030008/APP/6.3]</p>
	North East Lincolnshire Council	Stated the need to follow the new emerging policy with regards to tree replacement numbers	Tree planting will take into account the emerging policy as detailed within the Outline Woodland Compensation Strategy [TR030008/APP/6.8] .

13.3 Legislation, Policy and Guidance

13.3.1 **Table 13-2** presents the legislation, policy and guidance relevant to the assessment and details how their requirements have been considered.

Table 13-2: Relevant legislation, policy and guidance regarding the landscape/seascape and visual impact assessment

Legislation/ Policy/Guidance	Consideration within the ES
European Landscape Convention (“ELC”) (Ref 13-1)	
<p>The ELC recognises landscape in law. It focuses specifically on landscape issues and highlights the importance of integration of landscape into areas of policy to promote protection, management and planning of all landscapes including the assessment of landscape and analysis of landscape change.</p>	<p>The assessment aims to comply with the overarching aims of the ELC and considers relevant policies. These policies are outlined within this table.</p> <p>Landscape change is assessed using the landscape and visual baseline as described with Section 13.6.</p>
National Policy Statement for Ports (“NPSfP”) (Ref 13-2)	
<p>The NPSfP provides the framework for decisions on proposals for new port development. The Project is considered to be a Nationally Significant Infrastructure Project (“NSIP”) within the ports industry.</p> <p>Section 5.11.3 of the NPSfP requires a landscape and visual assessment to be undertaken and reference made to any landscape character assessment and associated studies, as a means of assessing landscape impacts relevant to the proposed project. It states that the assessment should take into account any relevant policies based on these assessments in local development documents.</p> <p>Section 5.11.4 states that the effects during construction on the project and the effects of the completed development and its operation components and landscape character should be included.</p> <p>Section 5.11.5 states that the visibility and conspicuousness of the project during construction and the presence and operation of the project and potential impacts on views and visual amenity including any light pollution effects on local amenity, rural tranquility and nature conservation.</p>	<p>Published national (Ref 13-23, Ref 13-24, Ref 13-25 and Ref 13-26), regional (Ref 13-27), and local (Ref 13-28, Ref 13-29, Ref 13-32, Ref 13-36 and Ref 13-37) landscape and seascape character assessments have been considered in determining the landscape baseline and the Project is assessed against the existing landscape context in terms of landscape character. The published character assessments are included in Section 13.3.</p> <p>The assessment considers the landscape and visual impacts of the Project during its construction and operation including the effects of lighting in Section 13.8.</p>
The National Planning Policy Framework (“NPPF”) (Ref 13-5)	
<p>The revised NPPF was published in July 2021 and includes policies that ensure that these types of developments are:</p>	<p>Section 13.3 outlines the published national, regional, and local landscape and seascape character assessments that have assisted to determine the landscape and seascape baseline. This section describes the existing</p>

Legislation/ Policy/Guidance	Consideration within the ES
<p><i>‘sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change’.</i></p> <p>‘Policy 15: Conserving and enhancing the natural environment recognises that the environment should be enhanced by:</p> <p><i>b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;</i></p> <p><i>c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate....’</i></p> <p>The NPPF sets out national planning policies that reflect priorities of the Government for operation of the planning system and the economic, social, and environmental aspects of the development and use of land.</p> <p>The NPPF has a strong emphasis on sustainable development, with a presumption in favour of such development.</p>	<p>area into which the Project would be located as industrial and containing port related uses.</p> <p>Section 13.8 describes the likely effects of The Project against the existing landscape context in terms of the existing industrial nature of the landscape character. This section demonstrates how, for example, landscape character in the vicinity of Work No. 3 and Work No. 5 would be maintained by retaining the eastern edge of the existing Long Strip woodland and how the PRoW would be diverted (rather than closed) during the first phase of construction works to maintain access to the coast.</p>
<p>The National Planning Practice Guidance (“NPPG”): National Design Guide (Ref 13-6)</p>	
<p>NPPG paragraphs 52 and 53 outline the requirement to consider and respond to existing local character and identity.</p> <p>The guidance states that development should consider characteristics of local built form, height, scale, massing and relationships between buildings. Proposals should also consider the scale and proportions of new buildings within the existing landscape context.</p>	<p>This guidance has been taken into account in Section 13.8 where the effects on landscape and visual amenity are assessed.</p>
<p>The National Planning Practice Guidance (“NPPG”): Natural Environment (Ref 13-6)</p>	
<p>Paragraph 36 of the NPPG explains the key issues and planning policies relating to the conservation and enhancement of the landscape and Paragraph 37 of the guidance states that an LVIA can be used to demonstrate the likely effects of a proposed development on landscape character.</p>	<p>This guidance has been taken into account in Section 13.7 when defining the Project design and proposed mitigation measures.</p>

Legislation/ Policy/Guidance	Consideration within the ES
North Lincolnshire Local Plan Publication Draft Addendum Plan (Ref 13-7)	
<p>The following Policies are relevant to the Project:</p> <p>DQE1 – Protection of landscape, townscape and views requires that development proposals do not cause unacceptable harm and protect the distinctive character and quality of the landscape. Development proposals should also take account of, views in to and out of development areas and preserve local views and vistas.</p> <p>DQE12 – Protection of Trees, Woodland and Hedgerows states that trees, woodland, and hedgerows will be retained and protected, and planting schemes will be required to accompany applications for development.</p>	<p>The assessment considers landscape character and considers the effects of the Project on views within Section 13.8.</p> <p>Section 13.7 describes the mitigation approach and the requirement to protect existing trees, woodland and hedgerows which are to be retained within the Site Boundary.</p>
North East Lincolnshire Local Plan (adopted March 2018) (Ref 13-8)	
<p>The following Policies are relevant to the Project:</p> <p>Policy 22 - Good design in new developments, outlines North East Lincolnshire Councils (“NELCs”) expectations in terms of the design approach for new development. The policy states the requirement for thorough consideration of the site’s context, informed by the relevant published landscape character assessments and design guidance for NELC.</p> <p>Policy 42 - Landscape states the requirement to refer to the published landscape character assessment to determine the local context of the proposed development. It states the requirement for a proportional and site-specific landscape appraisal.</p> <p>It also identifies the requirement for responsive design and mitigation by incorporating landscape buffers by way of suitable landscape planting if appropriate.</p>	<p>Section 13.8 considers the published landscape character assessment and the landscape context in which the Project is to be located.</p>
East Riding Local Plan (Ref 13-9)	
<p>The following Policy is relevant to the Project:</p> <p>Policy ENV2: Promoting a high quality landscape <i>“Development proposals should be sensitively integrated into the existing landscape, demonstrate an understanding of the intrinsic qualities of the landscape setting and, where possible, seek to make the most of the opportunities to protect and enhance landscape characteristics and features. To achieve this, development should:</i></p> <p><i>Protect and enhance views across valued landscape features, including flood meadows, chalk grassland,</i></p>	<p>Views from the East Riding of Yorkshire administrative boundary are considered as part of the assessment at Viewpoint 1 and included within Table 13-4.</p>

Legislation/ Policy/Guidance	Consideration within the ES
<i>lowland heath, mudflats and salt marsh, sand dunes and chalk cliffs.”</i>	
The North Lincolnshire Local Development Framework Development Plan Documents (“DPDs”) – Core Strategy (adopted June 2011) (Ref 13-10)	
<p>The following Policies are relevant to the Project.</p> <p>Policy CS5 - Delivering quality design in North Lincolnshire notes that all new design in North Lincolnshire should be well designed and appropriate for its context. It notes that developments should incorporate appropriate landscaping and planting that enhances biodiversity and contributes to green infrastructure.</p> <p>Policy CS12 - Biodiversity and landscape character of the Humber Estuary should be protected and enhanced by harmonising the landscape with port related development activities. The policy states that the South Humber Gateway Conservation Mitigation Strategy Delivery Plan will develop new green infrastructure directly linked to the Green Infrastructure Strategy for North Lincolnshire.</p>	<p>Section 13.6 considers the surrounding landscape context through the use of published landscape character assessments. Section 13.7 describes the mitigation approach and considers the requirement to protect and retain existing trees, woodland and hedgerows located within the Site Boundary and summarises how these have been addressed in the Project design.</p>

13.4 Assessment Methodology

13.4.1 The methodology used within this assessment is set out within **Appendix 13.A [TR030008/APP/6.4]**.

13.4.2 The LVIA has been undertaken taking into account the following best practice guidance:

- a. Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition. (GLVIA3) (Ref 13-11).
- b. Landscape Institute (2019). Technical Guidance Note (TGN) 06/2019: Visual Representation of Development Proposals. (Ref 13-12).
- c. Landscape Institute (2021). Assessing landscape value outside national designations, Technical Guidance Note 02/21. (Ref 13-13).
- d. Landscape Institute (2020). Infrastructure, Technical Guidance Note 04/2020 Limitations and Assumptions. (Ref 13-14).

13.4.3 In the LVIA, effects are formulated as a function of the value, susceptibility and sensitivity of the receptor, and the nature of effect/magnitude of impact (or change) predicted. A combination of professional judgement, defined thresholds, established criteria and standards have been used in their definition.

13.4.4 Whilst the identification of effect significance has involved the application of professional judgement, the overarching significance matrix used in the EIA shown in Table 5.3 in **Chapter 5: EIA Approach [TR030008/APP/6.2]** has

provided a guide for that process. Effects which are major and moderate are considered significant and effects which are minor or negligible are not significant.

Use of Rochdale Envelope

- 13.4.5 The design of the Project incorporates a degree of flexibility in the dimensions and configurations of buildings and structures to allow for the future detailed design and selection of the preferred technology and contractor. Therefore, the Landscape and Visual Impact Assessment (“LVIA”) has been undertaken in accordance with the Planning Inspectorate Advice Note Nine: Using the Rochdale Envelope (Ref 13-15). The anticipated components for the Project and in particular its main buildings and structures are detailed in **Chapter 2: The Project [TR030008/APP/6.2]**.
- 13.4.6 The magnitude of visual impacts associated with the Project relates to (amongst other criteria) the size of the buildings and structures and geographical extent of the area influenced by them. Given this, the assessment is based upon Schedule 1 of the **draft DCO [TR030008/APP/2.1]** which lists the key buildings and structures in each part of the Project (defined by Work Nos.), the Works Plans **[TR030008/APP/4.2]** which set out the maximum geographical extent of each Work No. and the maximum heights of the permanent built elements as set out within the parameters section in **Chapter 2: The Project [TR030008/APP/6.2]**.

Baseline Data Collection

- 13.4.7 In addition to the published landscape character assessments, as described within **Appendix 13.B [TR030008/APP/6.4]** and **Section 13.4**, the following information sources have been consulted to establish the baseline landscape and visual conditions:
- Mapping data from Natural England, including National Character Areas, Country Parks, Local Nature Reserves (Ref 13-16).
 - Mapping data from Historic England including Listed Buildings, Registered Parks and Gardens (Ref 13-17).
 - Google Earth (Ref 13-18).
 - Google Street View (Ref 13-19).
 - Open-Source Data including MAGIC (Ref 13-20).
 - AECOM Geospatial Information (Ref 13-21).
 - Mapping data from CPRE The Countryside Charity including England’s Light Pollution and Dark Skies Map (Ref 13-22).
- 13.4.8 Visits to the study area were conducted on 7 September 2022 and 6 October 2022 to define baseline conditions and identify local receptors and landscape features. Following the initial site visit, the viewpoint located at St Peter’s and St Paul’s Church was discounted as described within **Table 13-4**.
- 13.4.9 The weather during these visits was fair, with sunny intervals and light cloud and good visibility.

- 13.4.10 A further visit was conducted on 26 January 2023 to define the winter baseline scenario when screening by vegetation is reduced. The weather was generally overcast with some sunny intervals and good visibility.

Limitations and Assumptions

- 13.4.11 The information presented in this assessment is based on the design for the Project, and the vertical and spatial parameters as described within **Paragraph 13.4.5** above.
- 13.4.12 The landside elements of the Project have a design life of up to approximately 25 years. The impacts on landscape character and visual amenity arising as a result of Project decommissioning for the landside elements are considered to be similar to those identified at the construction stage of the Project. For landscape, this is as a result of the scale and nature of the development in relation to the existing industrial structures and complexes present in the wider landscape and the large scale of the landscape character areas. For visual amenity, this is as a result of the visibility of decommissioning and demolition activities being of a similar nature to those during construction for the landside elements.
- 13.4.13 The Project does not make any provision for the decommissioning of the marine facilities of the Project (except where infrastructure on the topside of the jetty has been used, and is decommissioned, in parallel with hydrogen production facility) and therefore the impacts on landscape and seascape character and visual amenity have not been assessed for these elements.
- 13.4.14 Once the decommissioning process has been completed, it is anticipated that the resulting conditions would be similar to those that currently exist as detailed in **Chapter 2: The Project [TR030008/APP/6.2]** with the exception of the marine facilities (Work No. 1 and Work No. 2 in part) which will be maintained for port-related activities.
- 13.4.15 The photomontages (**Figures 13.10.1 – 13.10.6**) are for illustrative purposes and provide a fair representation of what might be seen if the Project was built. The photomontages are based on likely design and height information available at the time of production and the assessments made within this Chapter rely on professional judgement as described within **Appendix 13.A [TR030008/APP/6.4]** taking account of the parameters for the Project described within **Paragraph 13.4.5** above.
- 13.4.16 Due to the temporary diversion of Bridleway 36, the assessment of visual effects during construction (and decommissioning) at Viewpoint 3 takes into consideration a temporary diversion route is proposed between the two points BB and BA shown on the **Stopping Up and Restriction of Use of Streets and Public Rights of Way Plan [TR030008/APP/4.7]**, with users being diverted around the eastern perimeter of the temporary construction area which would be established on the area defined for Work No. 9, to reconnect with the retained bridleway further to the east on the sea wall. Once the first phase of construction is completed, the bridleway would be re-instated on its current alignment and the temporary diversion would be closed.

13.5 Study Area

- 13.5.1 The extent of the study area is determined by the potential visibility of the Project in the surrounding landscape and is proportionate to the size and scale of the proposals and nature of the surrounding landscape. GLVIA3 (Ref 13-11) states that the study area should include ‘*the full extent of the wider landscape around it which the Proposed Development may influence in a significant manner*’.
- 13.5.2 The study area has been defined by a combination of Zone of Theoretical Visibility (“ZTV”) analysis and professional judgement. The ZTV is based on the vertical parameters within each area of the works as set out on the **Works Plans [TR030008/APP/4.2]** and within **Chapter 2: The Project [TR030008/APP/6.2]**. It is considered that it is highly unlikely that significant effects would be experienced further than 3km from the Site. A study area of 2.5km was identified within the Scoping Report (**Appendix 1.A [TR030008/APP/6.4]**); however, following further review this coverage was extended to 3 km to include locations on the north-coast of the Humber Estuary within the East Riding of Yorkshire.
- 13.5.3 An additional viewpoint, Viewpoint 10, was added as requested by NLC which represents views from the England Coast Path. The viewpoint is described in **Table 13-4** and assessed in **Table 13-9**.

13.6 Baseline Conditions

Existing Landscape and Seascape Baseline

Landscape and Seascape Characterisation

- 13.6.1 The following section outlines the relevant landscape characteristics as described within the published landscape character assessments at a national, regional, and local scale. Further detail is provided within **Appendix 13.B [TR030008/APP/6.4]**.

National Character Areas

- 13.6.2 At a national scale Natural England provide 159 National Character Area (“NCA”) profiles. Each profile includes a description of the natural and cultural features that shape the landscape. The study area encompasses two NCA profiles as follows:
- NCA 41: Humber Estuary (Ref 13-23).
 - NCA 42: Lincolnshire Coast and Marshes (Ref 13-24).
- 13.6.3 Due to the scale of the Project in relation to the NCAs and the lack of intervisibility between the Project and NCA 42, NCA 42 has been discounted as a receptor in the assessment, and there will be no further reference to it.
- 13.6.4 The relevant characteristics of NCA 41 are described below and illustrated in **Figure 13.4 [TR030008/APP/6.3]**.
- 13.6.5 NCA 41: The Humber Estuary covers the Project and part of the study area. The character area is broadly split into two components, the largest being the expanse of water associated with the Humber Estuary. The estuary is formed by

the confluence of several major rivers, including the Trent, Don, Aire, Ouse and Hull, and discharges into the North Sea. Due to its strategic position, the estuary facilitates important and busy trade routes. The land adjacent to the coast is described as a '*low-lying estuarine landscape with extensive stretches of intertidal habitats*'. Due to these elements, the landscape has international significance as a Ramsar site, along with several other designations. The character area provides a varied landscape, with open and extensive views across remote and rural areas, contrasting with heavy industry associated with towns and ports. Due to the factors outlined above, such as the international designations and the influence of the heavy industry, the value of this NCA is assessed to be medium.

National Seascape Character Assessment

- 13.6.6 At a national scale the study area includes the Marine Character Area ("MCA"): East described in the National Seascape Character Assessment for England (MM01134) (Ref 13-25) and illustrated on **Figure 13.4 [TR030008/APP/6.3]**.
- 13.6.7 The MCA East is subdivided into distinct areas within the Seascape Character Area Assessment East Inshore and East Offshore marine plan areas (Ref 13-26) and the Project is located within Character Area 6: Humber Waters. The area is illustrated on **Figure 13.4 [TR030008/APP/6.3]**. The relevant characteristics of MCA 6 Humber Waters are summarised below.
- 13.6.8 MCA 6 Humber Waters is the second largest coastal plain estuary in the UK and is bound by intertidal mud and sand flats and saltmarsh. These habitats provide internationally important wildlife corridors. Spurn Head, located to the north of the Humber, is a designated feature for geomorphology and wildlife habitats. The character area contains the UK's largest port complex and views are dominated by an extensive and complex mix of industrial, commercial, agricultural, residential and tourism land uses. Shipping traffic using the local ports provide a dominant animated feature. The value of the MCA is assessed to be medium as there are important designated features located within the character area, however the character is heavily influenced by industrial presence.

Regional Character Assessment

- 13.6.9 At a national scale the Project and study area is located within the Regional Character Area ("RCA") Area 3: The Northern Marshes within The Historic Landscape Characterisation Project for Lincolnshire (English Heritage and Lincolnshire County Council, 2011) (Ref 13-27). The RCA is defined by the industrial features along the coast clustered around the deep-water Port of Immingham. The assessment describes the visual dominance and unique character created by views of the large and tall structures, such as Lindsey Oil Refinery, which are linked with the port and heavy industry. The value of this character area is assessed to be low as the area is dominated by industrial elements and processes.

Local Character Assessment

- 13.6.10 The study area is covered by three published local Landscape Character Assessments:
- North East Lincolnshire Council Landscape Character Assessment (Ref 13-32).
 - East Riding of Yorkshire Landscape Character Assessment (Ref 13-28).
 - North Lincolnshire Landscape Character Assessment and Guidelines (Ref 13-29).

North East Lincolnshire Council Landscape Character Assessment

- 13.6.11 The NELC Landscape Character Assessment (Ref 13-37) divides the landscape of North East Lincolnshire into three broad Character Areas, with the Project being located within Area A – Humber Estuary.
- 13.6.12 Area A – Humber Estuary is sub-divided into Local Landscape Types (“LLTs”), with the Project located within LLT 1 Industrial Landscape. The character of this area is described as *‘Landscapes visually dominated by large or massive structures serving as docks, storage, factories or petrochemical installations. These structures are often separated by extensive open arable land with hedges and groups of trees playing little compositional role in the landscape.’*
- 13.6.13 Other key characteristics applicable to the study area located with LLT 1 are as follows:
- Flat and visually open landscape.
 - Large scale industrial works including Immingham Power Station and docks set against large skies.
 - Detracting features such as heavy industry, pylons and wirescape, and busy roads.
 - Established low cut field boundaries and hedgerow trees with taller vegetation along road networks.
- 13.6.14 The NELC Landscape Character Assessment (Ref 13-37) notes that value of LLT 1 is assessed to be very low due to the dominance of detracting features and industry.
- 13.6.15 Parts of the study area fall within LLT 2: Open Farmland which has key characteristics as follows:
- Flat landform emphasising large skies with open views towards the industrial areas and docks.
 - Medium to large scale arable farmland with limited development.
 - Detracting features such as distant views of industry, pylons, and busy road network.
- 13.6.16 The NELC Landscape Character Assessment notes that value of LLT 2 is assessed to be low due to its proximity to the industrial areas and presence of dominating features within the landscape.

- 13.6.17 Parts of the study area also fall within LLT 3: Wooded Open Farmland which has key characteristics as follows:
- a. Virtually flat landform emphasising large skies although gentle undulations are present.
 - b. Medium to large scale open arable farmland with some woodland blocks with tall hedgerows and mature trees along roadside boundaries.
 - c. Some detracting features such as pylons, and busy road network.

13.6.18 The NELC Landscape Character Assessment notes that value of LLT 3 is assessed to be medium as the landscape is intact and considered to be in moderate condition. Views of industry are distant and intervening features such as woodland blocks enable detracting features to be accommodated within the character area. Due to the distance from the Project and lack of intervisibility, this character area has been discounted for the purposes of this assessment with no further reference.

East Riding of Yorkshire Council (“ERYC”) Landscape Character Assessment

- 13.6.19 The eastern part of the study area falls within the ERYC Landscape Character Assessment (Ref 13-28). The area is categorised as Area 21: Drained Farmland Local Landscape Character Type. This landscape character type is then subdivided into four further character areas. The sub-area applicable to the study area is Area 21B: Sunk Island.
- 13.6.20 Some of the key characteristics of Area 21: Low Lying Drained Farmland are as follows:
- a. Flat and low-lying flood plain of the River Humber.
 - b. Sparse tree cover.
 - c. Open and extensive views across a bleak and featureless landscape.
 - d. Sky dominates views across the flat open landscape.
- 13.6.21 Area 21B: Sunk Island is a Conservation Area and exists as an area of historic reclaimed land. Tree and vegetation cover is sparse, and the area is described as bleak. Settlements exist as scattered farmsteads.
- 13.6.22 The ERYC Landscape Character Assessment notes that the value of Area 21B: Sunk Island is assessed to be high as this area is a Conservation Area and the lack of landscape elements and built form creates a unique character despite the distant views of industry on the horizon.

North Lincolnshire Landscape Character Assessment and Guidelines

- 13.6.23 A review of the current North Lincolnshire Landscape Character Assessment was commissioned by JBA Consulting (Ref 13-36) and forms part of the evidence base for the emerging North Lincolnshire Local Plan (Ref 13-7). The assessment subdivided the Landscape Character Areas (“LCAs”) into LCTs. Parts of the study area fall within the Humber Estuary LCA which has key characteristics as follows:
- a. Predominantly low-lying estuarine landscape with large skies and open views.
 - b. Changing character due to tidal influences with low tide revealing extensive areas of mudflats.
 - c. Limited vegetation cover, although where blocks of woodland occur, these are visually prominent within the view.
 - d. Urban and industrial influences.
- 13.6.24 The Local Character Type (“LoCT”) within the Humber Estuary LCA is Industrial Landscape. The key characteristics defining the Industrial Landscape are as follows:
- a. Low lying and flat, however, gently undulates as it extends west.
 - b. Dominated by heavy industry with remnant pockets of flat open farmland.
 - c. Detracting features such as heavy industry and urban influences such as fences, signs, and major transport corridors.
- 13.6.25 The assessment states that “Landscape infrastructure elements are insignificant within the industrial landscape. Ornamental mitigation planting and amenity trees in grass verges are generally out of scale with the vertical infrastructure and industrial mass.”
- 13.6.26 The value of this LCA is assessed to be very low due to the dominance and scale of the industry and the inability of landscape elements, as outlined above, to accommodate these detracting features.

Vegetation Cover

- 13.6.27 Tree and shrub cover within the study area is generally sparse. Woodland blocks, where they exist, are visually prominent within the flat landscape. Field boundaries are predominantly native hedgerows that are generally poorly maintained. Taller hedgerows and hedgerow trees tend to be located along roads, adjacent to settlements, and on the outer extents of the study area, where the landscape features tend to be in better condition.
- 13.6.28 The relatively low vegetation cover within the study area means that woodland, hedgerows and trees within parts of the Site, form prominent landscape features, including an area of woodland known as Long Strip covered by a TPO. The extent and location are illustrated on **Figure 2.1 Site and Surrounding Environment [TR030008/APP/6.3]**.

Topography and Drainage

- 13.6.29 The topography of the study area is low lying and flat, with many areas formed as historically reclaimed land. An extensive network of ditches artificially drains the land and divides agricultural land into medium to large scale rectilinear fields.

Settlements

- 13.6.30 The study area is characterised by heavy industrial development associated with Immingham and the docks. Immingham, the main settlement, is located to the west of the Site. Stallingborough, a smaller settlement, is located to the south of the Site on the edge of the study area. Several isolated farmsteads are scattered throughout the study area.

Communications

- 13.6.31 The study area is connected to major road networks via the A180 which becomes the M180 and connects to the M18, M62 and A1(M) further to the west (outside the study area). Immingham and Stallingborough are connected by Stallingborough Road (B1210). The Project is connected to the Port and the major road network via a series of A and B roads.
- 13.6.32 There are a number of PRoW within the study area, including Bridleway 36, running north from Laporte Road, which forms part of the proposed route for the England Coast Path between the Humber Bridge and Easington (to the north of the Humber) and Mablethorpe to Humber Bridge (to the south of the Humber). The part of the Bridleway 36 located within the Site is illustrated on Map MHB 3I: North Beck Drain to Queens Road (Ref 13-35).

Night-time Context

- 13.6.33 The study area is influenced by existing high levels of artificial light and sky glow associated with heavy industry and major infrastructure networks. Aviation lighting and flairs on tall structures are visible across the study area.

Landscape and Seascape Character of the Project Site and Immediate Setting

- 13.6.34 The Project is situated on land that extends from the A1173 (to the east of Immingham) across to the southern coastline of the Humber and to the south of Immingham Docks. The full extent of the Project is shown on **Figure 2.1 [TR030008/APP/6.3]** and described within **Chapter 2: The Project [TR030008/APP/6.2]**.

- 13.6.35 The Site is split into multiple areas comprising the following:

- a. Terminal area (Work No. 1) located within the marine areas of the River Humber and including the adjacent seawall. The area comprises intertidal coastal features exposing mud flats during low tide as well as the grassy banks of the sea wall flood defences, with rock armour and concrete revetments. There is no formal public access to the tidal area, however, Bridleway 36 which forms part of the proposed England Coast Path is located along the top of the sea wall flood defences. This area is adjacent to

the existing Immingham Oil Terminal and jetty and the marine areas are influenced by shipping activity.

- b. Corridor between the jetty and Laporte Road (Work No. 2) including a section of woodland known as 'Long Strip' that is subject to a TPO. Bridleway 36 extends along the eastern edge of Long Strip and connects Laporte Road to the sea wall forming part of the proposed England Coast Path. Influenced by industrial areas and port activity to the north and industry to the south-east.
- c. The East Site (Work No. 3 and Work No. 5) comprises two parcels of land which are bisected by Laporte Road comprising an area of hardstanding to the north currently used as a storage area, and an area of brownfield land to the south containing a gravelled area and stockpiles of materials. The two parts of the East Site would be linked by a culvert (Work No. 4) under Laporte Road. The areas are bound by woodland and mature vegetation, including Long Strip to the east, and industrial areas. Laporte Road and adjacent industrial areas influence the character of this site.
- d. The West Site (Work No. 7) comprises agricultural fields bound by hedgerows and drainage ditches. The A1173 bounds the West Site to the west and Kings Road to the north. There is a short tarmac access road into the West Site from Kings Road. The West Site is influenced by the adjacent roads and industry, such as the electrical sub-station and power generator to the north-west and gypsum landfill site to the south. Residential and small-scale commercial properties located on Queens Road are located to the north-east boundary of the West Site and there is an area of hardstanding between the properties and the West Site used as storage for a number of large vehicles.
- e. Underground Pipeline Corridor (Work No. 6) between the East Site and West Site alongside Queens Road. This corridor is impacted by adjacent industrial development and road network and contains some patchy mature vegetation.
- f. Temporary Construction Areas to the north of Laporte Road located on agricultural land (Work No. 9) and on a brownfield area with crushed materials adjacent to existing buildings, off Queens Road (Work No. 8). Work No. 8 does not support substantive vegetation and is not considered relevant to the assessment that follows.

13.6.36 Existing light pollution levels on the Site are high as shown on the England's Light Pollution and Dark Skies interactive map and is available to view online (Ref 13-22). Artificial light sources from adjacent land use, such as road networks and industrial areas, influence the perceptual night-time character of the Site.

Value of the Landscape Receptor

13.6.37 **Table 13-3** provides details of the landscape areas and features of relevance to the Project, and their overall landscape value, based on Assessing landscape value outside national designations, Technical Guidance Note 02/21 (Ref 13-11).

Table 13-3: Non-designated Landscape and Seascape Areas/ Features

Factor	Study Area	The Project Site
Natural Heritage	There are multiple natural heritage elements including national and international designations such as a Special Area of Conservation (SAC), a Special Protection Area (SPA), Ramsar, RSPB important bird areas. There is also a Local Wildlife Site (“LWS”) located on Laporte Road, close to the Project.	The Project would be located partly within, and partly on land adjacent to, the Humber Estuary Special Area of Conservation (“SAC”), Special Protection Area (“SPA”), Ramsar site and Site of Special Scientific Interest (“SSSI”), collectively referred to as the Humber Estuary European Marine Site (“EMS”). Long Strip is subject to a TPO.
Cultural Heritage	The study area contains cultural heritage assets including: two Scheduled Monuments, and a Heritage Conservation Area. There are twelve Listed Buildings distributed across the study area.	There are no cultural heritage designated interests located within the Site Boundary.
Landscape/Seascape Condition	<p>The landscape and seascape of the study area is predominantly open, low-lying land around the coast, influenced by industry, pylons and transport routes. Heavy industry is located around the deep-water Port of Immingham.</p> <p>Other parts of the study area are low lying open arable land with scattered buildings/ farmsteads. The landscape to the north of the Humber is described as bleak.</p> <p>Landscape quality is poor where industry and power stations are present, however, more rural areas on the outer limits of the study area have a moderate to good landscape condition.</p> <p>The seascape is influenced by heavy industry and port infrastructure and operations.</p>	<p>Generally poor condition with the East Site (Work No. 3 and Work No. 5) comprising brownfield land and influenced by adjacent industrial land use.</p> <p>The West Site (Work No. 7) comprises former agricultural fields, however, these are also influenced by Queens Road, an electrical sub-station, with overhead electricity cables.</p> <p>Field boundaries, where they exist on the West Site, are poorly managed and comprise overgrown species-poor hawthorn.</p> <p>Within the East Site and adjacent to the boundary is a narrow belt of TPO woodland known as the ‘Long Strip’ Mature trees and vegetation also exist along highway verges along Laporte Road within the Site Boundary.</p> <p>The area located within the Humber is adjacent to, and influenced by, the existing Oil Terminal Jetty.</p>

Factor	Study Area	The Project Site
Scenic quality	<p>Views comprise open flat landscapes with large skies and seascapes with views across intertidal mudflats and open water. The industrial complex associated with the Port has a strong visual influence over the generally flat, low-lying surrounding landscape and seascape creating a dramatic skyline.</p> <p>The more rural areas on the outer limits of the study area, to the south of the railway line and to the north of the Humber (Sunk Island), have fewer detracting features. However, Sunk Island is described as bleak due to its lack of features and sense of remoteness due to its coastal location.</p>	<p>Western parts of the Site have a very low scenic quality. To the east, the scenic quality increases due to the dynamic qualities and expansive views over the Humber Estuary where they exist.</p>
Associations	<p>No literary value, connections with notable people or arts has been identified.</p>	<p>No literary value, connections with notable people or arts has been identified.</p>
Distinctiveness	<p>The study area contains urban features which are distinctive to the location. The Humber Estuary and intertidal habitats create a unique landscape. The strong industrial presence with flat topography and large skies creates a strong sense of place. The industrial influences found within the study area is representative of the identified landscape character at a national, regional, and local level.</p>	<p>Few distinctive features. The Site's identity is informed by the coastline, brownfield land and adjacent industry. Long Strip forms an identifiable feature.</p>
Recreational	<p>The landscape within the study area contains PRow which include both footpaths and bridleways. These generally radiate from Immingham and connect to the surrounding countryside.</p> <p>The proposed England Coast Path as a new National Trail will provide an additional recreational route.</p> <p>The recreational value is low, however, a campsite is located within the northern extents of the study area.</p>	<p>In terms of formal rights of way, part of the proposed route upgrade to the England Coast Path is located on Bridleway 36 within the Site Boundary and adjacent to the Site Boundary. There is no other formal PRow within the Site.</p> <p>The Humber Estuary, including foreshore areas, are accessible informally from the sea wall within the Site Boundary and from more accessible access points in adjacent areas although levels of usage are relatively low.</p> <p>There is also informal access through the southern part of Long Strip woodland, south of Laporte Road.</p>

Factor	Study Area	The Project Site
<p>Perceptual (Scenic)</p>	<p>The study area is not a landscape that has evident value through appealing to the senses, primarily the visual sense. The study area contains small areas regarded as tranquil and remote, especially on the northern and southern limits of the study area where detracting features are less prominent.</p> <p>The scenic value of the seascape is influenced by industry along the coastline and shipping activity within the Humber. Tranquillity of the general area is eroded by major transport corridors and imposing industrial presence.</p>	<p>The Site has no particular or notable scenic value, albeit Long Strip adds to value in an otherwise industrial context.</p>
<p>Perceptual (Wildness, tranquillity and dark skies)</p>	<p>The study area contains small areas regarded as tranquil and remote, especially on the northern and southern limits of the study area. Tranquillity of the general area is eroded by major transport corridors and imposing industrial presence.</p> <p>Large scale industry with tall elements, and major transport corridors introduce high levels of artificial light into the night-time scenario and has influence across the study area.</p>	<p>Tranquillity is low due to adjacent land use and activity associated with the Port.</p> <p>Existing artificial lighting levels and light spill within the Site are high.</p>
<p>Functional</p>	<p>The industrial development, port infrastructure, residential areas and transport corridors form the main functions within the study area. The study area has ecological functions within the Humber Estuary and as described above.</p>	<p>Industrial, brown field, and undeveloped land has left areas of the Site without a clear or defined function. Marine areas and linear belts of vegetation such as the Long Strip woodland and other tree belts and hedge lines provide ecosystem services.</p>
<p>Overall landscape value</p>	<p>Low</p> <p>The study area does not include any areas designated locally for their landscape character and/or perceptual qualities/tranquillity. The study area is also heavily influenced by industrial development, port infrastructure, residential areas and transport corridors both on land and within the Humber.</p>	<p>Low</p> <p>The Project is located in an area surrounded by existing industrial development with few important landscape features. The landscape elements within the Site Boundary do not contribute to the landscape or seascape value or contribute distinguishing features to the identified landscape or seascape character. The Site contains features such as the England</p>

Factor	Study Area	The Project Site
		Coast Path route and the Long Strip woodland.

Existing Visual Baseline

Zone of Theoretical Visibility (“ZTV”) Analysis

- 13.6.38 In order to identify locations with potential views of the Project, a ZTV for bare earth (**Figure 13.2: Zone of Theoretical Visibility – Bare Earth**) and one including visual screening (**Figure 13.3: Zone of Theoretical Visibility – Visual Screening**) have been produced. These identify those areas which have potential for views of the Project and to what extent it is likely to be visible. The ZTVs are illustrated in **Figure 13.2** and **Figure 13.3 [TR030008/APP/6.3]**.
- 13.6.39 The ZTVs were produced on a worse-case scenario basis using the spatial parameters for the Work Areas as set out in **Paragraph 13.4.5** above. The ZTV is based upon a grid of points spaced 50m apart within the required Works Areas as illustrated within **Figure 2.3 [TR030008/APP/6.3]**.
- 13.6.40 The ZTVs were generated by analysis of a 3D digital terrain model (“DTM”) of the surrounding terrain and the Project. The bare earth ZTV has been generated using Ordnance Survey (“OS”) Terrain 5 digital terrain data which does not take into account the screening effects of vegetation, buildings or other structures. The visual screening ZTV has been generated using the same data and uses woodland from the Forestry Commission National Forest Inventory (Ref 13-39) with an assumed tree height of 15m, building height data from OS Master Map and buildings from OS Open with an assumed height of 7.5m. The ZTVs are based upon an observer eye height of 1.6m.
- 13.6.41 The ZTV illustrates that the visibility within the Study Area is generally widespread as a result of the low landform and limited intervening features such as hedgerows, woodland blocks and settlements.

Visual Receptors and Viewpoints

- 13.6.42 Visibility within the wider study area is generally extensive due to the low-lying land along the coast and lack of intervening vegetation. There are open views from the north-east coastline of the Humber Estuary towards the Site and adjacent industrial areas in the south-west. There are also open and extensive views from the Site and adjacent areas towards to north bank of the Humber Estuary. Where views are available, they are expansive and comprise large skies which are broken with vertical features and structures associated with industrial activity.
- 13.6.43 Users of the main transport routes and the proposed England Coastal Path would gain dynamic views towards the Project to varying degrees, dependent on intervening structures, screening vegetation, elevation and direction of travel.

- 13.6.44 Users of the railway line between Stallingborough and Habrough would gain transient, dynamic views towards the Project at an oblique angle. Views would include a landscape containing large areas of farmland, industrial structures, overhead power lines and highway infrastructure.
- 13.6.45 Within the study area there are a number of local roads in proximity to the Project which connect Immingham and the Port to major road networks. Generally, views whilst travelling on these roads are dynamic and vary at different points along the road depending on the level of enclosure and intervening features. At locations closer to the Project, views are often restricted by screening vegetation and built form located along the road corridors.
- 13.6.46 Due to the flat landscape, visibility is restricted in closer proximity to the Project by built form and vegetation, providing contrasts between enclosure and expansive views.
- 13.6.47 Through consultation and agreement with NLC, a total of 12 viewpoints were chosen to represent the typical range of views of the Project within the study area. Following the summer survey, one viewpoint, labelled as NV within **Table 13-4** and illustrated on **Figure 13.7** was discounted due to intervening structures which restrict views towards the Site. Representative viewpoints are listed in **Table 13-4** and illustrated on **Figures 13.8.1 to 13.8.13** for the summer baseline and **13.8.14 to 13.8.26** for the winter baseline [TR030008/APP/6.3].

Table 13-4: Representative Viewpoints

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
1	PRoW PAULF06/ Cherry Cobb Sands Road. Proposed England Coast Path	Users of PRoW	1.15	523506, 418907	<p>Viewpoint 1 is located on the northern coastline of the Humber Estuary where Cherry Cobb Sands Road meets PRoW PAULF06. The path forms part of the proposed England Coast Path Route. The view is open and expansive over the flat landscape with distant views to the south. There is a high level of tranquillity and remoteness at this location. The view extends across the mudflat and saltmarsh coastal margin and open water of the Humber Estuary to the southern coastline of the Estuary. The landscape at the viewpoint is characterised by low tussocky vegetation associated with mudflats and open shallow pools connected by tributaries to the Humber. Development in this location comprises occasional isolated dwellings and a number of small fishing boats moored at Stone Creek.</p> <p>The southern coastline and horizon are defined by an almost continuous line of industrial development, including large structures and tall vertical elements. There are also several large shipping vessels located within the Estuary, which obscure views of the coastline.</p> <p>The viewpoint is located within close proximity to Scheduled Monument - Stone Creek heavy Anti-aircraft gun site, at Sunk Island Clough.</p> <p>Artificial lighting from industrial areas, including aviation lighting on tall structures, is visible along the southern coastline with skyglow across the horizon. Lighting associated with shipping activity within the Humber Estuary will also be visible within the night-time context. No sources of lighting are present at the viewpoint location.</p> <p>Value of the view: The view is considered to be locally valued and enables expansive views across the Humber Estuary, providing some scenic value. The value of the view is assessed to be medium.</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
2a and 2b	PRoW NKIL50 Proposed England Coast Path	Users of PRoW	4.79	521630, 415255	<p>Viewpoint 2 (2a and 2b) is located on the coastal path to the east of the Project and looks west towards the East Site. On land, the view is confined to medium range and enclosed by a narrow woodland belt, Long Strip, which is located adjacent to the bridleway/PRoW and the north-western boundary of the Site. The view comprises the coastal path which extends along the flood defences, the coastal margin with mudflats and low vegetation, the existing jetty with landside infrastructure associated with the Port, and industrial buildings and infrastructure located on Laporte Road. There are also some taller structures visible above the tops of the trees.</p> <p>Location subject to high levels of light pollution and skyglow from adjacent industry and road networks.</p> <p>Value of the view: The view is considered to be locally valued and enables expansive views across the Humber Estuary, providing some scenic value. The value of the view is assessed to be medium.</p>
3	PRoW Bridleway 36 Proposed England Coast Path	Users of bridleway/ PRoW	5.5	521311, 415505	<p>Viewpoint 3 is located on the proposed England Coast Path to the west of the Site and looks east along the existing flood defences and path. The view is open and comprises distant views down the Humber Estuary to the south-east. To the south is an existing bridleway/PRoW (Bridleway 36), which is enclosed by mature trees (Long Strip) and vegetation to the west and a small to medium sized field to the east. More distant features comprise structures and buildings associated with industry which include tall vertical elements.</p> <p>Location subject to high levels of light pollution and skyglow from adjacent industry and road networks.</p> <p>Value of the view: The view is considered to be locally valued and enables expansive views across the Humber Estuary, providing some scenic value. The value of the view is assessed to be medium.</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
4a and 4b	Queens Road	Local road users and commercial premises	2.2	521311, 414743	<p>Viewpoint 4 (a and b) is located on Queens Road. To the north, the road is bound by a pavement and wide grass verge with commercial units adjacent. To the south, the road is bound by a rough grass verge with scattered vegetation. Views are confined to the medium range by intervening scrubby vegetation and small blocks of mature trees. Street lighting, road signs, parked cars, and Queens Road Power Station introduce detracting features into the scene. Overhead pylons and a spoil heap are also visible in the distance to the south.</p> <p>Location contains street lighting and is subject to high levels of light pollution from adjacent industry and road networks.</p> <p>Value of the view: The view is heavily influenced by urban development, detracting features and industry. The value of the view is assessed to be low.</p>
5	PRoW to the east of Immingham	Users of the PRoW	2.12	509289, 414779	<p>Viewpoint 5 is located on a PRoW between the eastern edge of Immingham and Kings Road. The view extends over a small to medium sized arable field containing the PRoW. A small footbridge crossing a drain with scrubby vegetation occupies the foreground with mature vegetation enclosing the horizon. Detracting features such as an industrial facility, Queens Road Power Station, overhead pylons and a spoil heap are also visible in the distance to the south. The view looks to the east towards the West Site.</p> <p>Suburban location adjacent to areas with high levels of light pollution from industry. Existing aviation lighting likely to be visible on the horizon.</p> <p>Value of the view: The view contains many rural elements. However, it is influenced by detracting features and industry. The value of the view is assessed to be low.</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
6	PRoW to the rear of Ings Lane/Talbot Road	Residents located to the edge of Immingham and users of the PRoW	1.98	519048, 414526	<p>Viewpoint 6 is located on the eastern edge of Immingham to the rear of residential development on Ings Lane/Talbot Road. The view extends east across an area used recreationally and comprises rough grass, scrub, and a small area of woodland with a tarmac car parking area in the foreground. Views of industry are available to the north-east where gaps in the vegetation allow for more distant views.</p> <p>Suburban location adjacent to areas with high levels of light pollution from street lighting and industry. Existing aviation lighting likely to be visible on the horizon through gaps in the vegetation with skyglow visible across the horizon.</p> <p>Value of the view: The view contains some detracting features, however, it is considered to be valued locally. The value of the view is assessed to be low.</p>
7	PRoW to the north west of Mauxhall Farm	Users of the PRoW	3.16	519090, 413323	<p>Viewpoint 7 is located on a PRoW to the south-west of the West Site. The view extends over the large arable field in which the footpath is contained. The landscape is open and flat. The horizon is enclosed by mature vegetation and marked by the presence of heavy industry and vertical infrastructure, such as pylons and cranes.</p> <p>Views towards areas with high levels of light pollution from industry. Existing aviation lighting and skyglow likely to be visible on the horizon. No direct light sources are present at the viewpoint location.</p> <p>Value of the view: The view contains some detracting features, however, it is considered to be valued locally. The value of the view is assessed to be low.</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
8	PRoW to the north western edge of Stallingborough	Residents located to the edge of Stallingborough	1.81	520649, 412061	<p>Viewpoint 8 is located on a PRoW to the rear of houses on Station Road, Stallingborough. The landscape is open and flat and generally rural in character. The view extends over medium to large arable fields with occasional mature trees and small patches of scrub. The horizon is enclosed by mature vegetation. A network of pylons introduces vertical elements and detracting features into the scene. The stacks and flare stack at Lindsey Oil Refinery is just visible on the horizon to the north west.</p> <p>Views towards areas with high levels of light pollution from industry. Existing aviation lighting and skyglow likely to be visible on the horizon.</p> <p>Value of the view: The view contains some detracting features and, is considered to be valued locally. The value of the view is assessed to be low.</p>
9	B1210 (adjacent to the railway line)	Users of the local road	10.54	518447, 412430	<p>Viewpoint 9 is located on the B1210 to the south-west of the Project. The landscape is open and flat and generally rural in character with a recently ploughed field forming the midground. The A1173 is located within the mid-view adding moving vehicles to the scene. The horizon is enclosed by mature vegetation and built form. Tall vertical elements, such as the cranes associated with the Port, stacks, overhead pylons, and street lighting are visible across the horizon.</p> <p>Existing aviation lighting and illumination from industrial areas likely to be visible on the horizon with additional lighting from traffic movements and street lighting. Light sources at the viewpoint location are limited to headlights from vehicles.</p> <p>Value of the view: The view contains detracting features across the extent of the horizon. The value of the view is assessed to be low.</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
10	PRoW SKIL50 Proposed England Coast Path	Users of the PRoW	3.57	518160, 417989	<p>Viewpoint 10 is located on the proposed England Coast Path approximately 3.5 km to the north-west of the Project and falls outside the study area. The view comprises heavy industrial elements associated with the Docks, including the Ore Terminal, associated infrastructure, and jetties. The view is dynamic and tranquillity is low.</p> <p>Location subject to high levels of light pollution from adjacent industry and headlights from vehicles on the road network.</p> <p>Value of the view: The view is dominated by detracting features, however, is considered to be valued locally. The value of the view is assessed to be low.</p>
11	Kings Road, Immingham	Residents of houses and commercial receptors	>10m	519676, 414814	<p>Viewpoint 11 is located on Queens Road to the north of the West Site. The residential receptors are located on the west of Queens Road with the rear of the properties orientated to face south-west towards the West Site. Views from the front of the properties are orientated towards Queens Road and commercial buildings located to the east of Queens Road. The main focus of the view from the front of the residential properties is the road, with its associated features such as parked cars along both sides, street lighting and metal fencing. The view is enclosed by commercial development, which includes a series of prefabricated metal and brick buildings containing light industry and offices. These buildings are partially screened by a single row of trees and ornamental planting.</p> <p>To the rear of the residential properties, extends a series of three former agricultural fields which comprise the West Site. The fields are flat and open and allow for views across to Kings Road Power Station (adjacent to the north-western corner of the West Site).</p> <p>Views of tall vertical elements, such as overhead pylons, structures associated with Kings Road Power Station and street lighting are likely from the rear of the residential properties.</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
					<p>Location subject to high levels of light pollution from adjacent industry, street lighting and headlights from vehicles on the road network.</p> <p>Value of the view: The view contains detracting features across the horizon and the focus of the view is of the road and commercial/ industrial buildings located along the road. The value of the view is assessed to be low.</p>
NV	St Peter's and St Paul's Church and PRow	Users of the PRow and visitors to the church	8.31	519491, 411803	<p>The viewpoint was visited, however, there were no available views towards the Site from this location due to intervening landform and vegetation and it is therefore discounted from the assessment. The viewpoint is located at Scheduled Monument – Stallingborough medieval settlement, post medieval manor house and formal gardens and within close proximity to Scheduled Monument – Churchyard cross 20m south of St Peter and St Paul's Church. The Viewpoint is shown on Figure 13.7 [TR030008/APP/6.3] as 'nv' (no view).</p>

Summary of Visual Baseline

- 13.6.48 The extent of views of the Project available to receptors range from close range views to long distance views. Receptors are located at the edge of villages, along roads and transport networks and on various PRow within the study area.
- 13.6.49 The study area is characterised by low lying arable land, influenced in most parts by industrial development and the Port. Large scale pylons and transmission lines transect the landscape and tall cranes within the Port. Due to the low-lying landform within the study area, views of these structures are available where vegetation and built form allow. In localised areas, small, isolated woodlands and boundary vegetation offer a degree of visual enclosure. Much of the vegetation within the study area is deciduous, therefore, there will be varying degrees of visibility depending on the time of year.
- 13.6.50 The night-time context is influenced by high levels of lighting from industrial areas, street lighting within residential areas, and transport corridors. Tall structures within industrial areas contain aviation lights which are likely to be visible across the study area.

Future Baseline

- 13.6.51 The future baseline is a prediction of baseline conditions in the future, assuming that the Project is not constructed. In the absence of the Project, parts of the Site will continue to be utilised for port activity. As such, the future landscape/seascape and visual baseline, including night-time baseline, at a site scale is anticipated to be similar to the existing baseline as described.

13.7 Development Design and Impact Avoidance

Mitigation Measures

- 13.7.1 The Project has been designed, as far as possible, to avoid and minimise impacts and effects to landscape/seascape and visual receptors through the process of design development, and by embedding mitigation measures into the design.
- 13.7.2 The opportunity for mitigation of the visual effects of the Project is limited due to the size and scale of the Project. It is considered that the addition of landscape features such as trees and woodland would not be effective in reducing these effects on visual amenity.
- 13.7.3 **Table 13-5** outlines the embedded and standard mitigation measures for the Project in relation to landscape and visual effects. More detail on mitigation measures is set out within **Chapter 5: The EIA Process [TR030008/APP/6.2]** and the **Schedule of Mitigation and Monitoring [TR030008/APP/7.2]**.

Table 13-5 Mitigation Measures

Category	Mitigation Measures
<p>Embedded mitigation measures - developed through the iterative design process, which have become integrated or embedded into the project.</p>	<p>a. Valued trees, woodland, existing vegetation and other landscape features have been protected and retained wherever possible, in accordance with BS5837:2012. Trees in relation to design, demolition and construction. During construction trees would be clearly fenced or marked so that site operatives are in no doubt as to which ones are to be kept and protected as included within the Outline Construction Environmental Management Plan (“CEMP”) [TR030008/APP/6.5].</p> <p>b. The TPO designation on the Long Strip woodland indicates value/importance at a site level and through an iterative design process the landtake and subsequent associated tree loss has been minimised. A proposed building has been relocated to avoid impacting a veteran tree within the woodland as detailed in Chapter 3: Needs and Alternatives [TR030008/APP/6.2].</p>
<p>Standard mitigation measures- construction and operational management practices for avoiding and reducing environmental effects</p>	<p>a. The selection of finishes for the buildings and other infrastructure will be dictated by the process function of the equipment. Appropriate materials will be used on buildings to minimise adverse impacts on visual amenity. Indicative construction and colours of proposed structures and buildings is outlined in Chapter 2: The Project [TR030008/APP/6.2]. Approval of materials for key buildings and paint finish of the ammonia storage tank will be secured by Requirement.</p> <p>b. The Lighting Assessment Report, Appendix 2.B [TR030008/APP/6.4], outlines the lighting requirements during the construction and operation stages of the Project to reduce unnecessary light spill outside of the Site Boundary.</p>

13.7.4 Construction of the Project would be subject to measures and procedures defined within a CEMP, which would be produced prior to the commencement of construction by the Principal Contractor and would be based on, and incorporate, the contents and requirements of the **Outline CEMP** [TR030008/APP/6.5] which is submitted with the DCO application. The CEMP is secured by DCO Requirement.

13.8 Assessment of Likely Impacts and Effects

13.8.1 The construction, operation and decommissioning of the Project have the potential to result in adverse impacts on landscape/seascape character and visual amenity. This an industrial process facility that will be sited in a predominantly industrial landscape.

- 13.8.2 The potential impacts of the Project primarily relate to the visibility of proposed structures (temporary and permanent), including how this affects the perceptual qualities and tranquillity of a character area and the direct loss of landscape features within the Site Boundary.
- 13.8.3 With regard to the Project construction phase (and decommissioning), potential landscape/seascape and visual amenity impacts relate to the following:
- a. Construction of the marine infrastructure including dredging. Dredging to take place within the subtidal area.
 - b. Minor losses of scattered scrub where this coincides with localised areas required for temporary works.
 - c. Temporary prevention of farming of areas of arable farmland to be used for construction laydown activities.
 - d. Loss of trees within the Long Strip woodland to facilitate the development of the operational access road to the jetty and pipeline corridor.
 - e. The introduction of stationary and moving plant including cranes and piling rigs, jack-up barge and other high-level construction machinery and marine construction vessels.
 - f. The introduction of low-level construction operations including temporary stockpiling or storage of materials, contractor/welfare facilities and temporary laydown areas.
 - g. Construction vehicles including heavy goods vehicles (“HGV”) entering and leaving the Site and surrounding area.
 - h. The progressive construction of tall structures, including new flare stacks and the ammonia storage tank.
 - i. Construction lighting to illuminate site operations after dark and for site security.
- 13.8.4 With regard to the Project’s operational and commissioning phase, potential landscape impacts relate to the following:
- a. Operation of large-scale buildings and structures and marine infrastructure including a jetty with a single berth, with topside infrastructure.
 - b. Operational access points connecting the Project with local roads (including Laporte Road, Kings Road and the A1173).
 - c. Site lighting, where required for operational safety and site security.
 - d. Movement of additional vehicles and shipping vessels within and around the operational area, jetty and within the Humber Estuary.
 - e. Potential visibility of plumes and infrequent flares (in exceptional circumstances, i.e. for emergency use only and during start up and shut down, rather than routinely noting that flares are to be fitted with shroud to minimise visibility of pilot).
- 13.8.5 These potential impacts and effects are considered in detail in the assessment that follows.

Landscape/Seascape Effects

13.8.6 **Table 13-6** provides an assessment of the sensitivity of the landscape receptors identified within the study area. The Site has been assessed as a single receptor but has been divided into sub-areas due to the scale of the Site and range of characteristic landscape elements.

Table 13-6: Landscape Sensitivity Assessment

Landscape/seascape receptor		Sensitivity Assessment		
	Value	Susceptibility	Sensitivity	Sensitivity Rating
Natural England National Character Area Profiles (Ref 13-23 and Ref 13-24)				
NCA 41: Humber Estuary	Medium	Very Low	The low-lying open landscape contains some nationally significant conservation features, although is influenced by the presence of existing large-scale infrastructure. Susceptibility to change arising from the Project is therefore considered to be very low due to the scale of the Project in relation to the character area. In addition, the introduction of industrial elements, including lighting, is considered to be consistent with the identified defining characteristics of the NCA.	Low
National Seascape Character Assessment for England (MM01134) (Marine Management Organisation, 2018) (Ref 13-25)				
MCA 6: Humber Waters MCA: East	Medium	Very Low	Bound by intertidal mud and sand flats and saltmarsh, the habitats within this character area provide internationally important wildlife corridors. Spurn Head, located to the north of the Humber, is a designated feature for geomorphology and wildlife habitats. The character area contains the UK's largest port complex and views are dominated with an extensive and complex mix of industrial, commercial, agricultural, residential and tourism land uses. Shipping traffic utilising the ports provide a dominant animated feature. Susceptibility to change arising from the Project is therefore considered to be very low as the introduction of industrial elements, including lighting, is consistent with the defining characteristics as described above.	Low

Landscape/seascape receptor		Sensitivity Assessment		
	Value	Susceptibility	Sensitivity	Sensitivity Rating
The Historic Landscape Characterisation Project for Lincolnshire (Ref 13-27)				
RCA Area 3: Northern Marshes	Low	Very Low	<p>The published landscape character assessment states that the landscape is heavily influenced by industrial features and that despite the presence of detracting features, the industry creates a character which is dramatic and unique. The industrial development respects the historic landscape pattern by continuing the existing orientation and rectilinear form.</p> <p>Susceptibility to change arising from the Project is therefore considered to be very low due to the existing landscape context in relation to the industrial features.</p>	Low
North East Lincolnshire Landscape Character Assessment Sensitivity and capacity Study (FPCR Environment and Design Ltd, 2015) (Ref 13-32)				
LCA Area A – Humber Estuary LLT 1 – Industrial Landscape	Very Low	Very Low	<p>The landscape does not contain any designated features and the condition is described as poor within the landscape character assessment. The landscape is heavily influenced by large scale industry and light pollution, and there are many detracting features which influence the landscape character. Tranquillity is further eroded by the network of busy roads, such as the A180 and A1173.</p> <p>The susceptibility to change arising from the Project is considered to be very low as the introduction of industrial elements is consistent with the defining characteristics.</p>	Very Low
LCA Area A – Humber Estuary LLT2 – Open Farmland	Low	Low	<p>The area contains Great Coates Conservation Area (outside the study area) and is considered to be in moderate condition as described within the published landscape character assessment. Distant views of industry in the daytime and night-time context form part of the identified character.</p>	Low

Landscape/seascape receptor		Sensitivity Assessment		
	Value	Susceptibility	Sensitivity	Sensitivity Rating
			The susceptibility to change arising from the Project is considered to be low.	
North Lincolnshire Landscape Character Assessment and Guidelines (Ref 13-33)				
The Humber Estuary LCA Landscape Character Type – Industrial Landscape	Very Low	Very Low	The landscape is degraded in places containing a high number of detracting features including industrial development along the coastline. Tranquillity is assessed to be low. Susceptibility to change arising from the Project is considered to be very low as the introduction of industrial elements is consistent with the defining characteristics.	Very low
East Riding of Yorkshire Landscape Character Assessment (2018) (Ref 13-28)				
Drained Farmland LCA 21 21B – Sunk Island	High	Very Low	The area is a Conservation Area and contains a number of ecological designations. It is considered to be in reasonable condition. Detracting features are present within the landscape along the horizon on the southern coastline of the Humber. The susceptibility to change arising from the Project is considered to be very low as the area will be able to accommodate the Project without compromising the baseline situation.	Medium
Site and Immediate Setting				
Landscape and Seascape Character of the Site and immediate setting - Humber Estuary (Work No. 1)	Low	Low	Character influenced by large shipping vessels and existing jetties protruding seawards into the Humber. The susceptibility of the offshore area to changes arising from the Project is assessed to be low due to the proximity of existing similar structures and capacity to accommodate development of this nature.	Low
Landscape and Seascape Character of the Site and immediate	Low	Low	Character influenced by traffic movements and disturbance associated with Laporte Road. Industrial development, such as the Associated Petroleum Terminal works complex,	Low

Landscape/seascape receptor		Sensitivity Assessment		
	Value	Susceptibility	Sensitivity	Sensitivity Rating
setting - Landside Landscape Features - East Site (Work No. 3 and Work No, 5)			inform the character of the East Site and its immediate setting and introduces dominant detracting features. The land is currently brownfield land and contains areas of hard-standing, gravel, and various stockpiles. Therefore, the susceptibility of the East Site to changes arising from the Project is assessed to be low.	
Landscape and Seascape Character of the Site and immediate setting - Landside Landscape Features - West Site (Work No. 7)	Low	Low	Comprises three former agricultural fields bound by hedgerows and ditches. The West Site has a simple character which is influenced by Queens Road, Kings Road, and the A1173 adjacent to the boundary. Industrial complexes located on Queens Road, two sub-stations, and overhead pylons reduce the West Site's susceptibility to the Project. Therefore, the susceptibility is assessed to be low.	Low
Landscape and Seascape Character of the Site and immediate setting - Landside Landscape Features within Pipeline Areas and access road (Work No. 2)	Low	Medium	A new jetty access road and pipe-racks (comprising Work No. 2) would impact Long Strip woodland (covered by a TPO) and further mature trees and vegetation along the road corridor to Laporte Road. The extent of tree loss is considered in detail within the (Arboricultural Impact Assessment Appendix 8.F [TR030008/APP/6.4]) . Due to the presence of mature trees and the TPO, the sensitivity of the receptor is assessed to be medium. The main pipeline corridor (Work No. 6) linking the East Site (Work No 5) with the West Site (Work No 7) would be entirely underground	Medium
Landscape and Seascape Character of the Site and immediate setting - Landside Landscape Features within temporary	Low	Low	Located adjacent to Laporte Road and Queens Road, these areas are influenced by the adjacent busy road networks and detracting features such as overhead pylons and industrial complexes. The tranquillity within the areas is low. The susceptibility of the temporary Construction Laydown Areas to construction activity associated with the Project is assessed to be low.	Low

Landscape/seascape receptor		Sensitivity Assessment			
		Value	Susceptibility	Sensitivity	Sensitivity Rating
Construction Laydown Areas (Work No. 8 and Work No.9))					
Landscape and Seascape Character of the Site and immediate setting - Overall character		Low	Low	The pattern of the landscape ranges from degraded to intact and the Site is dominated by industrial complexes and activity. The tranquillity across the Site is low due to adjacent industrial land uses and road networks. Overall, the susceptibility to change arising from the Project is considered to be low due to its location within the surrounding industrial landscape context.	Low

13.8.7 The Project would introduce new large-scale industrial development and marine infrastructure into an area where heavy industry and port facilities is an established land-use. Pylons, overhead lines and transport networks, including shipping within the Humber, are dominant and form the landscape and seascape context to the Project. These features inform the landscape and seascape character immediately adjacent to the Project.

13.8.8 Taking into account the embedded mitigation measures referred to above, the Project characteristics and the prevailing landscape, **Table 13-7** provides an assessment of the potential landscape and seascape effects associated with the Project construction (and decommissioning) phase, whilst **Table 13-8** considers effects during Project operation. It is considered that the effects identified associated with Project construction are also applicable to the Project decommissioning phase for the landside infrastructure associated with the hydrogen production facility (the marine infrastructure is to remain in operation as part of the operational port, beyond the anticipated 25-year design life of the hydrogen production facility).

Table 13-7: Assessment of Landscape and Seascape Effects - Construction

Landscape /seascape type	Sensitivity of receptor	Description of impact	Predicted magnitude of change	Classification of effect
NCA 41: Humber Estuary	Low	Construction activities associated with the Project will directly impact the NCA. Construction activities will be viewed in context with other large-scale industrial developments and port infrastructure. Due to presence of the existing large-scale industrial development which lies within this NCA and the type of construction activities being undertaken, it is considered that the Project will have very limited potential to affect the landscape character and perception of the NCA in the short term. Impacts will be over a small geographical extent, short term and reversible and therefore the magnitude is assessed as very low . This will result in a negligible adverse not significant effect.	Very Low	Negligible adverse (not significant)
MCA 6: Humber Waters	Low	The Project will introduce construction activities which will directly impact the MCA. This will include dredging to facilitate the construction of the jetty. Other marine and landside construction activity, including marine construction vessels, will add visible disturbance and impact the tranquillity of the MCA. Construction activities will be viewed in context with other large-scale industry and appear in context with the already dynamic landscape and existing large-scale jetties. The size and scale of the construction works associated with the Project is medium in relation to the MCA and the key daytime and night-time characteristics of the landscape will be retained. Impacts will be over a medium geographical extent, short term and reversible, therefore the magnitude is assessed as low . This will result in a minor adverse not significant effect.	Low	Minor adverse (not significant)
LLT 1 – Industrial Landscape	Very Low	Construction associated with the Project will directly impact the LLT as a result of construction activities and removal of landscape features. Construction activities will be viewed in context with other large-scale industry, however the tranquillity within LLT will be eroded further. Due to the presence of these large-scale structures within this LLT and the nature of construction activities, it is assessed that the Project will have a limited potential to impact the daytime and night-time landscape characteristics. Impacts will be	Very Low	Negligible adverse (not significant)

Landscape /seascape type	Sensitivity of receptor	Description of impact	Predicted magnitude of change	Classification of effect
		over a medium geographical extent, short term and reversible, therefore the magnitude is assessed as very low . This will result in a negligible adverse not significant effect.		
LLT2 – Open Farmland	Low	The Project lies outside of this LCT but will introduce views of construction activity into it. Distant views of industry to the east, against large skies, is characteristic of this area. Views of industry, together with the network of high voltage pylons, introduce detracting features into the landscape. It is anticipated that the construction of the Project will result in a limited perceptible change to the daytime and night-time landscape character and tranquillity. The impact is over a small geographical extent, short term and reversible, therefore the magnitude of change is assessed as very low . This will result in a negligible adverse not significant effect.	Very Low	Negligible adverse (not significant)
21B – Sunk Island	Medium	The Project lies outside of this LCT but will introduce views of construction activity into it. Due to expansive views containing large-scale structures including Killingholme Oil Refineries, Immingham Oil Terminal, Immingham Docks, and other heavy industry, it is considered that the construction of the Project will result in limited perceptible change to the daytime and night-time landscape character and tranquillity. The impact is over a small geographical extent, short term and reversible, therefore the magnitude of change is assessed as very low . This will result in a negligible adverse not significant effect.	Very Low	Negligible adverse (not significant)
The Site and its immediate setting	Low	The Project will require the construction of large-scale marine and landside infrastructure onto a site which is already set within the context of an industrial landscape. Construction methods to include dredging, piling, Horizontal Directional Drilling (“HDD”) and/or digging of open trenches for pipelines and will include the delivery of construction materials and plant. Construction activity will result in the further erosion of tranquillity and features which will contribute additional disturbance and movement. Temporary construction compound and laydown areas and temporary site access at multiple locations will result in the removal of arable farmland and vegetation. Vegetation removal will also be required to facilitate new entrances connecting to existing roads.	Medium	Moderate adverse (significant)

Landscape /seascape type	Sensitivity of receptor	Description of impact	Predicted magnitude of change	Classification of effect
		<p>Elsewhere, construction will include the clearance of site vegetation and some of the Long Strip woodland for the construction of the pipeline and the jetty access road to the east of the East Site.</p> <p>Construction will result in temporary operations to remove and change some of the landscape elements, such as site vegetation, arable farmland, and existing areas of hard standing within the Site. Construction will strengthen the industrial character of the landscape of the Site and within the immediate setting. There will also be a reduction in tranquillity generally, however, this will be less pronounced due to its location adjacent to existing industrial areas.</p> <p>The impact is over a medium geographical extent, short term and reversible (with the exception of the tree removal), therefore the magnitude of change is assessed as medium. This will result in a moderate adverse effect which would be significant.</p>		

Table 13-8: Assessment of Landscape and Seascape Effects - Operation

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
NCA 41: Humber Estuary	Low	The Project will be located within the NCA and as such will result in direct and indirect change. While the Project will introduce additional built development and infrastructure into this NCA, change will largely occur within areas influenced by previous and existing industrial development and infrastructure. The impact will be over a small extent, will be long term and reversible and will have very little influence on the character or perceptual qualities of this NCA. Therefore, the magnitude of change is assessed to be very low .	Very Low	Negligible adverse (not significant)

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
MCA 6: Humber Waters	Low	The Project will introduce marine infrastructure and additional structures which will directly impact the MCA. Large shipping vessels are currently present within the landscape, however, the Project will introduce additional movement and further erode the tranquillity of the character area. Large structures, such as the ammonia tank and flare stack will be viewed in context with other large-scale industry and appear in context with the industrial landscape for the daytime and night-time scenario. The size and scale of the Project is proportionate in relation to the character area in general, and the key characteristics of the landscape will be retained. The impact is over a small geographical extent, long term and reversible, therefore the magnitude is assessed to be low . This will result in a minor adverse not significant effect.	Low	Minor adverse (not significant)
LLT 1 – Industrial Landscape	Very Low	The Project will directly impact the LLT as large new structures, such as the ammonia tank, vent stack, and flare stack will appear on the skyline and the jetty will encroach into the Humber Estuary. The flat low-lying landscape is heavily influenced by large scale industrial works and the Project will be viewed in context with other large-scale industry in the daytime and night-time scenario. Due to presence of these large-scale structures within this LLT and the nature of the proposals, it is assessed that the Project will have a limited potential to affect the landscape character and perception of the area. The impacts will be over a small geographical extent, long term and reversible, therefore the magnitude of change is assessed as low . This will result in a minor adverse not significant effect.	Low	Minor adverse (not significant)
LLT2 – Open Farmland	Low	The Project lies outside of this LCT, however, views of the Project from open locations will be available. These will appear as distant views and within the context of existing industry in the daytime and night-time scenario. These views of industry, together with the network of high voltage pylons introduce detracting features into the landscape. It is considered that the visible structures associated with the Project will result in limited perceptible change to the landscape character and tranquillity. The impact is over a small geographical extent, short term and reversible, therefore the magnitude of change is assessed as very low. This will result in a negligible adverse not significant effect.	Very low	Negligible adverse (not significant)

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
21B – Sunk Island	Medium	The Project lies outside of this LCT but will introduce views of the Project from within the character area. Due to expansive views containing large-scale structures, including Killingholme Oil Refineries, Immingham Oil Terminal, Immingham Docks and other heavy industry, it is considered that the Project will result in a limited perceptible change to the landscape character and tranquillity for the daytime and night-time scenario. The impact is over a small geographical extent, short term and reversible, therefore the magnitude of change is assessed as very low . This will result in a negligible adverse not significant effect.	Very low	Negligible adverse (not significant)
The Site and its immediate setting	Low	<p>The Project will directly impact the Site and its immediate setting as large new structures will be present where there is currently an absence of these features. The Site is heavily influenced by adjacent large scale industrial works and the Project will be viewed in context with this existing large-scale industry for the daytime and night-time scenario. Partial vegetation loss to Long Strip which is an important landscape feature, however, given the scale and nature of the industrial context the loss of trees would not materially change the nature of landscape/ visual effects.</p> <p>Due to presence of large-scale structures within this LLT, and the nature of the proposals, it is assessed that the Project will have a limited potential to affect the landscape character and perception of the characteristics. Small scale impacts over a medium geographical extent, long term and reversible, therefore the magnitude of change is assessed as low. This will result in a minor adverse not significant effect.</p>	Low	Minor adverse (not significant)

Construction (and Decommissioning)

- 13.8.9 The Project will result in significant effects at a site level as a result of construction activity, use of farmland for temporary laydown and removal of vegetation. No other significant effects are anticipated to the identified landscape and seascape receptors during construction (or decommissioning of the terrestrial elements of the project and infrastructure on the topside of the jetty).

Operation

- 13.8.10 During the Project's operational phase, the aesthetic and perceptual qualities would remain similar to the present, with large-scale static structures visible within the wider landscape. Due to the setting of the Project, it is assessed that there would be minor adverse effect to the existing landscape character at a local scale and a negligible effect at a regional or national scale.
- 13.8.11 Overall, the influence of the Project would be limited to the localised landscape immediately adjacent to the Site Boundary and therefore no significant landscape or seascape effects are identified.
- 13.8.12 Given the scale and nature of the Project, there is limited potential for mitigation measures to further reduce operational phase effects, however, where possible and within the constraints of the Project, landscape elements are proposed which would assist in integrate the Project into the receiving landscape. Further detail is included within the **Outline LEMP [TR030008/APP/6.9]**. The Outline LEMP defines the opportunities which are available within the operational site boundaries to provide a strategy for landscape and biodiversity enhancement.

Visual Effects

- 13.8.13 Potential visual effects in relation to the Project in comparison with the future baseline visual context are considered in **Table 13-9** by reference to representative viewpoints – this table considers both Project construction and operation (with construction phase effects also being applicable to the decommissioning phase) and taking embedded mitigation into account. The assessments contained within **Table 13-9** should be read in conjunction with **Figures 13.1 - 13.8 [TR030008/APP/6.3]** which illustrate the baseline situation at each viewpoint.
- 13.8.14 Ten residential properties on the west side of Queens Road are proposed to be acquired to facilitate the Project (also refer to **Chapter 2: The Project [TR030008/APP/6.2]**). Air Products (BR) Limited is in discussions with the landowners/occupiers of the residential properties on Queens Road to negotiate their acquisition. Where it is not possible to acquire those properties through negotiation, acquisition powers for these properties will be sought through the DCO. For the purposes of this assessment, residential receptors have been assessed as a group within Viewpoint 11 for the construction phase of the Project only.

Table 13-9: Viewpoint Assessment

Viewpoint 1: PRow PAULF06/ Cherry Cobb Sands Road				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
523506, 418907	Users of the PRow (recreational)	1.15	3.5	South-west
Visual susceptibility to change		Value of view		Sensitivity of receptor
Extensive and open view containing many dynamic elements including large shipping vessels. Distant views of heavy industry including large structures and tall elements. View has scenic quality due to the scale of the view and receptors are focused on the surroundings. The susceptibility is assessed to be medium.		Medium		Medium
Size/ scale, duration and reversibility of impact at construction				
<p>Distant views of construction activity associated with the Project would be visible across the Humber Estuary. At the time of the survey, a large shipping vessel associated with the Oil Terminal obstructed views of the Site. The Site occupies a narrow field of view within an extensive and almost continuous line of industrial development along the southern coastline and construction activities are unlikely to be obvious within the view.</p> <p>High level construction activity, such as cranes, are likely to be visible within the view and would add additional vertical features and movement into the scene. Construction of the jetty (including dredging) is also likely to be visible, although periodically screened by the vessels. Construction of low-level landside infrastructure and pipelines is anticipated to be partially screened from view by intervening vegetation, built form and shipping activities.</p> <p>Due to the existing context, construction activity is unlikely to be prominent to the casual observer and would not introduce features at odds with the existing landscape character as port cranes already exist within the view. The scale of the impact is small within the view; however, the nature of the impact is adverse.</p> <p>Construction activity would be phased with the majority of the works described above occurring during Phase 1 (predicted to last a duration of three years). The duration is therefore short term.</p> <p>The overall impact at construction is assessed as a small size/scale of change in the view, over a small geographical extent, short term and reversible and therefore a low magnitude. The sensitivity is assessed as medium and therefore, this would result in a minor adverse effect on visual amenity at this location.</p>				
Magnitude of impact at construction				Low
Significance of effect at construction		Recreational	Minor adverse (not significant)	

Viewpoint 1: PRoW PAULF06/ Cherry Cobb Sands Road		
Size/scale, duration and reversibility of impact at operation		
<p>During Project operation, the in-river jetty including the marine infrastructure and the ammonia storage tank (located at the East Site) would be visible on the mid-horizon. Larger structures, including flare stack(s) and the ammonia storage tank would be visible against the sky. Additional large shipping vessels would be visible; however, these may also screen parts of the Project and would add movement within the Humber Estuary.</p> <p>The Project would increase the industrial prominence along the coastline without altering the balance of the overall view. The addition of the elements as described would not alter the character of the view due to the existing industrial context. The scale of the impact is small within the view; however, the nature of the impact is adverse.</p> <p>The impact of the Project would be long term and reversible for landside infrastructure and long term and permanent for marine infrastructure.</p> <p>The overall impact at operation is assessed as a small size/scale of change in the view, over a small geographical extent, long term and reversible and therefore a low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a minor adverse effect on visual amenity at this location.</p>		
Magnitude of impact at operation		Low
Significance of effect at operation	Recreational	Minor adverse (not significant)

Viewpoint 2: PRoW and proposed England Coast Path				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
521648, 415263	Recreational users of PRoW (recreational)	4.7	4.79	West
Visual susceptibility to change		Value of view		Sensitivity of receptor
View containing dynamic elements associated with the Port and subject to natural coastal processes. Industrial presence and flood defences influence the view. Views contain an undeveloped arable field and mature woodland belt, which are located within the Site Boundary. The susceptibility is assessed to be medium.		Medium.		Medium
Size/scale, duration and reversibility of impact at construction				
Phase 1 construction works for the Project would be visible at close to mid-range. The construction works for the Project would occupy a wide field of view, with the proposed jetty and topside				

Viewpoint 2: PRow and proposed England Coast Path

infrastructure extending into the Humber to the north-east and the East Site (including the ammonia tank) located behind the trees to the west.

High level construction activity, such as cranes for installations within the East Site are likely to be visible within the view and would add additional vertical features and movement into the scene. Elements such as this are already present within the view, however, these new features would be brought closer to the observer.

The construction of the marine infrastructure (Work No. 1), including dredging, would be present within the foreground and further erode tranquillity within this localised area. It is anticipated that jack-up barge(s) and other marine construction vessels would be required to facilitate the construction of the jetty and would introduce a working offshore platform and further movement and disturbance into the coastal scene.

Construction of the pipelines and jetty access road (Work No. 2) would also be visible from this location and would require removal of a section of the Long Strip woodland. In addition, site fencing and welfare facilities may also be present within the foreground.

Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term. The alterations would result in a pronounced deterioration in the existing view; therefore, the nature of the impact is adverse.

The overall impact at construction is assessed as a large size/scale of change in the view, over a large geographical extent, short term and reversible (with the exception of the tree removal) and therefore a high magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a major adverse effect (which is significant) on visual amenity at this location.

Magnitude of impact at construction		High
Significance of effect at construction	Recreational	Major adverse (significant)

Size/scale, duration and reversibility of impact at operation

Installations, such as the ammonia tank, and structures associated with East Site are expected to be visible from this location and form dominant new features across the skyline. A section of the existing Long Strip woodland along the bridleway/PRow would be removed to facilitate the operational access route to the jetty and pipe-racks, however some woodland would be retained which would provide some screening for views from the east.

The jetty would be visible from this location, although would not add a feature not already present or characteristic of the view. Additional shipping vessels would add further movement to the already dynamic coastline.

The ammonia pipeline from the jetty to the East Site is proposed to be above ground and stacked vertically. Views of this pipeline are likely to be visible from this location.

The alterations would result in a noticeable deterioration in the view and therefore the nature of the impact is adverse.

Users of the PRow would experience transient views whilst using the PRow, where the effects would be less visible along the wider route as a result of distance, intervening features, and direction of view.

Viewpoint 2: PRow and proposed England Coast Path		
<p>The overall impact at operation is assessed as a medium size/scale of change in the view, over a medium geographical extent, long term and reversible (landside) (with the exception of the tree removal) and permanent (marine) and therefore a medium magnitude.</p> <p>The sensitivity is assessed as medium and therefore, the Project would result in a moderate adverse effect (which is significant) on visual amenity at this location.</p>		
Magnitude of impact at operation		Medium
Significance of effect at operation	Recreational	Moderate adverse (significant)

Viewpoint 3: PRow Bridleway 36 and proposed England Coast Path				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
521311, 415505	Recreational users of the bridleway/ PRow	5.5	Adjacent to the Site Boundary	South-east
Visual susceptibility to change		Value of view		Sensitivity of receptor
View containing dynamic elements associated with the Port and subject to natural coastal processes. Industrial presence such as the Stallingborough chemical plant and flood defences influence the view. The view has a scenic quality albeit the detracting features. The susceptibility is assessed to be medium.		Medium		Medium
Size/scale, duration and reversibility of impact at construction				
<p>Views of construction activity associated with the Project would be visible at close to mid-range. The Project would occupy a wide field of vision within this view, with the proposed jetty extending into the Humber to the north-east. The section of Bridleway 36 which runs along the eastern edge of the Long Strip woodland would be diverted during Phase 1 of the construction phase to enable a temporary construction area (Work No. 9) to be established. The assessment considers the proposed diversion of the route to the east of the Laporte Road Temporary Construction Area (Work No. 9), noting that the final route is not fixed (as shown on the Stopping Up and Restriction of Use of Streets and Public Rights of Way Plan [TR030008/APP/4.7]). The Bridleway would then re-open after the first phase of construction.</p> <p>High level construction activity, such as cranes for installations within the East Site are likely to be visible and would add additional vertical features and movement into the scene.</p> <p>The construction of the marine infrastructure, including dredging, would be present within the view and further erode tranquillity within this localised area. It is anticipated that jack-up barge(s) would be required to facilitate the construction of the jetty and would introduce a working offshore platform with further movement and disturbance into the coastal scene.</p>				

Viewpoint 3: PRoW Bridleway 36 and proposed England Coast Path		
<p>Construction of the pipelines and access road would be visible from this location and include tree loss within the Long Strip woodland. Additional impacts arising from the clearance of surface vegetation and digging of open trenches within the field to the foreground. In addition, site fencing and welfare facilities may also be present within the scene.</p> <p>Construction activity is likely to dominate the scene. As described above, the Bridleway 36 would be diverted during Phase 1 of the construction of the Project for safety reasons.</p> <p>Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term.</p> <p>The overall impact at construction is assessed as a large size/scale of change in the view, over a large geographical extent, short term and reversible (with the exception of the tree removal) and therefore a high magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a major adverse effect (which is significant) on visual amenity at this location.</p>		
Magnitude of impact at construction		High
Significance of effect at construction	Recreational	Major adverse (significant)
Size/scale, duration and reversibility of impact at operation		
<p>Installations, such as the ammonia tank, and structures associated with the East Site (Work No. 3 and Work No. 5) are expected to be visible from this location on the periphery of the view. Some of the existing woodland along the Bridleway would be retained which would allow for some screening of the industrial installations.</p> <p>The new jetty (Work No. 1) would be visible from this location, alongside the existing IOT jetty. Additional shipping vessels would add further movement and disturbance to the already dynamic coastline.</p> <p>The temporary construction area (Work No. 9) in the arable field shown within the foreground would be restored to arable use following the construction of Phase 1 of the Project.</p> <p>The impact of the Project is long term and reversible for landside infrastructure and long term and permanent for marine infrastructure. The Project would result in a noticeable deterioration in the view and the nature of the impact is assessed as adverse.</p> <p>The viewpoint represents the worst-case scenario and is located at the closest point to the Project. Recreational receptors would experience transient views whilst using the PRoW, where the effects would be less visible as a result of intervening features and direction of view. The view from this location is likely to be orientated towards the Humber Estuary and activity associated with it.</p> <p>The overall impact at operation is assessed as a medium size/scale of change in the view, over a medium geographical extent, long term and reversible and therefore a medium magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a moderate adverse effect (which is significant) on visual amenity at this location.</p>		
Magnitude of impact at operation		Medium
Significance of effect at operation	Recreational	Moderate adverse (significant)

Viewpoint 4: Queen's Road				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
520221, 414743	Motorised users of the road and commercial receptors.	2.2	Less than 0.1km from the Site Boundary	Viewpoint 4a – north-east. Viewpoint 4b – south-west.
Visual susceptibility to change		Value of view		Sensitivity of receptor
View along Queen's Road containing both rural and urban elements. Distracting features such as Queen's Road Power Station. Receptors assessed as having a low susceptibility to change. The susceptibility is assessed to be low.		Low.		Low
Size/scale, duration and reversibility of impact at construction				
<p>Views of construction activity associated with the Project would be visible at close to mid-range. The Project would occupy a wide field of vision within this view to the north-east and south-west.</p> <p>High level construction activity, such as cranes for installations within the East Site (Work No. 3 and Work No. 5) would be visible behind the trees and against the skyline. Lower-level construction activity associated with the East Site is likely to be screened by existing intervening vegetation.</p> <p>Construction activity associated with the West Site (Work No. 7) and hydrogen pipeline is likely to be noticeable within the view with machinery, site welfare cabins, fencing and heavy vehicles present within the foreground.</p> <p>The construction of the marine infrastructure is unlikely to be visible from this location.</p> <p>Construction activities are likely to result in a noticeable deterioration in the view and the nature of the impact is assessed as adverse. Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term.</p> <p>The overall impact at construction is assessed as a medium size/scale of change in the view, over a medium geographical extent, short term and reversible and therefore a medium magnitude. The sensitivity is assessed as low and therefore, the Project would result in a minor adverse effect (which is not significant) on visual amenity at this location.</p>				
Magnitude of impact at construction				Medium
Significance of effect at construction		Local road users and commercial		Minor adverse (not significant)
Size/scale, duration and reversibility of impact at operation				
Installations, such as the ammonia tank (Work No. 3A), and other structures associated with East Site (Work No. 3 and Work No. 5) are expected to be visible from this location and would be visible on the skyline.				

Viewpoint 4: Queen's Road		
<p>Installations associated with the West Site (Work No. 7) are also likely to be visible from this location to the south west.</p> <p>The Project would introduce large new structures into the scene which would increase the industrial presence within this localised area. The Project is not out of context within the receiving landscape, however, would introduce built form which would enclose the view to the south-west.</p> <p>The Project is likely to result in a deterioration in the view with the addition of large detracting elements. The impact of the Project is long term, reversible and adverse.</p> <p>The overall impact at operation is assessed as a small size/scale of change in the view, over a medium geographical extent, long term and reversible and therefore a medium magnitude. The sensitivity is assessed as low and therefore, the Project would result in a minor adverse effect on visual amenity at this location.</p>		
Magnitude of impact at operation		Medium
Significance of effect at operation	Local road users and commercial	Minor adverse (not significant)

Viewpoint 5: Public Right of Way to the east of Immingham				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
519289, 414779	Users of the Public Right of Way	2.12	0.5km	East
Visual susceptibility to change		Value of view		Sensitivity of receptor
PRoW crosses a small to medium sized arable field. Detracting features present within the scene include overhead pylons, industrial building and power station. Receptors are assessed as having a medium susceptibility to the changes arising from the Project.		Low		Medium
Size/scale, duration and reversibility of impact at construction				
<p>Views of high-level construction activity, such as cranes for installations within the East Site (Work No. 3 and Work No. 5) and West Site (Work No. 7) would be visible behind the trees on the horizon. Lower-level construction activity associated with the West Site is likely to be screened by existing intervening vegetation along King's Road (A1173).</p> <p>Low-level construction activity associated with the East Site, marine infrastructure and pipelines is unlikely to be visible from this location due to the distance of the receptor and intervening vegetation and surface features.</p> <p>The addition of cranes into the landscape would add to the existing vertical and detracting features, however, would remain in context with the landscape character.</p>				

Viewpoint 5: Public Right of Way to the east of Immingham		
<p>Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term. Construction activities are likely to result in a limited deterioration of the view, however, the nature of the impact is adverse.</p> <p>The overall impact at construction is assessed as small size/scale of change in the view, over a small geographical extent, short term and reversible and therefore a low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a minor adverse effect on visual amenity at this location.</p>		
Magnitude of impact at construction		Low
Significance of effect at construction	Recreational	Minor adverse (not significant)
Size/scale, duration and reversibility of impact at operation		
<p>Installations, such as the ammonia tank (Work No. 3A) , and structures associated with East Site (Work No. 3 and Work No. 5) are expected to be visible on the skyline. Installations associated with the West Site are also likely to be visible from this location. Together these would extend the existing vertical features across the skyline.</p> <p>The Project would introduce additional large new structures into the scene which would increase the industrial presence within this localised area. The Project is not out of context within the receiving landscape, however, would extend the existing detracting features across the horizon.</p> <p>The impact of the Project is long term and reversible. The Project is likely to result in a limited deterioration of the view, however, the nature of the impact is adverse.</p> <p>The overall impact at operation is assessed as a small size/scale of change in the view, over a small geographical extent, long term and reversible and therefore a low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a minor adverse effect on visual amenity at this location.</p>		
Magnitude of impact at operation		Low
Significance of effect at operation	Recreational	Minor adverse (not significant)

Viewpoint 6: Public Right of Way to the rear of Ings Lane/Talbot Road				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
519048, 414526	Residents	1.98	0.7km	North-east

Viewpoint 6: Public Right of Way to the rear of Ings Lane/Talbot Road		
Visual susceptibility to change	Value of view	Sensitivity of receptor
PRoW located to the rear of houses on Ings Lane and Talbot Road. The susceptibility of the receptor is assessed to be medium to high.	Low	Medium
Size/scale, duration and reversibility of impact at construction		
<p>Views of high-level construction activity, such as cranes for installations within the East Site and West Site may be partially visible behind the trees on the horizon. Lower-level construction activity associated with the East Site and West Site would be screened by existing intervening vegetation including a block of woodland.</p> <p>All construction activity associated with the marine infrastructure and pipeline is unlikely to be visible from this location due to the distance of the receptor and intervening vegetation and surface features.</p> <p>The addition of cranes into the landscape would contribute additional vertical and detracting features into the scene, however, these are in context with the landscape character.</p> <p>Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term. Construction activity is likely to result in a change barely perceptible within the view.</p> <p>The overall impact at construction is assessed as small size/scale of change in the view, over a very small geographical extent, short term and reversible (with the exception of the tree removal) and therefore a very low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		
Magnitude of impact at construction		Very low
Significance of effect at construction	Residential and recreational	Negligible adverse (not significant)
Size/scale, duration and reversibility of impact at operation		
<p>Installations, such as the ammonia tank, and taller structures associated with East and West Site would be partially visible on the skyline, however, intervening vegetation would assist in screening some of these elements.</p> <p>The Project would introduce large new structures into the scene, although these may not be immediately apparent to the casual observer due to the proximity of the receptor from these structures. The Project is not out of context within the receiving landscape, however, would increase the presence of detracting features within the horizon where views allow.</p> <p>The impact of the Project is long term and reversible. The Project is likely to result in a barely perceptible deterioration of the existing view, however, the nature of the impact is assessed as adverse.</p> <p>The overall impact at operation is assessed as a small size/scale of change in the view, over a very small geographical extent, long term and reversible and therefore a very low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		

Viewpoint 6: Public Right of Way to the rear of Ings Lane/Talbot Road		
Magnitude of impact at operation		Very Low
Significance of effect at operation	Residential and recreational	Negligible adverse (not significant)

Viewpoint 7: Public Right of Way to the north east of Mauxhall Farm				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
519090, 413323	Users of PRow/recreational	3.2	1.2km	North-east
Visual susceptibility to change		Value of view		Sensitivity of receptor
PRow located within large arable fields. The susceptibility of the receptor is assessed to be medium to high as attention is focused on the enjoyment of the countryside.		Low		Medium
Size/scale, duration and reversibility of impact at construction				
<p>Views of high-level construction activity, such as cranes for installations within the East Site (Work No. 3 and Work No. 5) and West Site (Work No. 7) are likely to be visible within the horizon. Lower-level construction activity associated with the West Site would be screened by existing intervening vegetation and built form.</p> <p>All construction activity associated with the marine infrastructure Work No. 1) and pipe-rack and jetty access road (Work No. 2) is unlikely to be visible from this location due to the distance of the receptor and intervening vegetation and surface features.</p> <p>The addition of cranes into the landscape would contribute additional vertical and detracting features into the scene, however, these are in context with the landscape character. Within the narrow field of vision, where the Project would be visible, there are existing overhead pylons and vertical features.</p> <p>Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term. Construction activity is likely to result in a change barely perceptible within the view.</p> <p>The overall impact at construction is assessed as a small size/scale of change in the view, over a very small geographical extent, short term and reversible and therefore a very low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>				
Magnitude of impact at construction				Very Low
Significance of effect at construction		Residential		Negligible adverse (not significant)

Viewpoint 7: Public Right of Way to the north east of Mauxhall Farm		
Size/scale, duration and reversibility of impact at operation		
<p>Installations, such as the ammonia tank (Work No. 3A), and taller structures associated with East Site (Work No. 3 and Work No. 5) and West Site (Work No. 7) have the potential to be partially visible on the skyline within a narrow extent along the horizon.</p> <p>The Project would introduce large new structures into the scene, although these may not be immediately apparent to the casual observer due to the proximity of the receptor from these structures. The Project is not out of context within the receiving landscape, however, the presence of detracting features within the horizon would be increased.</p> <p>The impact of the Project is long term and reversible. The Project is likely to result in a barely perceptible deterioration of the existing view.</p> <p>The overall impact at operation is assessed as a small size/scale of change in the view, over a very small geographical extent, long term and reversible and therefore a very low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		
Magnitude of impact at operation		Very Low
Significance of effect at operation	Residential	Negligible adverse (not significant)

Viewpoint 8: Public Right of Way to the north east of Stallingborough				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
520649, 412061	Users of PRow and residents	1.8	2.4km	North
Visual susceptibility to change		Value of view		Sensitivity of receptor
PRow located within large arable fields with scattered areas of scrub and some mature trees along boundaries. Receptors have open rural views, however, influenced by pylons and distant industry on the horizon. The susceptibility of the receptor is assessed to be medium to high.		Low		Medium
Size/scale, duration and reversibility of impact at construction				
Views of high-level construction activity, such as cranes for installations within the East Site (Work No. 3 and Work No. 5) and West Site (Work No. 7) are likely to be visible behind mature vegetation on the horizon. Lower-level construction activity associated with the Project would be screened by existing intervening vegetation and built form.				

Viewpoint 8: Public Right of Way to the north east of Stallingborough		
<p>All construction activity associated with the marine infrastructure and pipeline is unlikely to be visible from this location due to the distance of the receptor and intervening vegetation and surface features.</p> <p>The addition of cranes into the landscape would contribute additional vertical and detracting features into the scene, however, these are in context with the landscape character.</p> <p>Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term. Construction activity is likely to result in a change barely perceptible within the view.</p> <p>The overall impact at construction is assessed as a small size/scale change in the view, over a very small geographical extent, short term and reversible and therefore a very low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		
Magnitude of impact at construction		Very Low
Significance of effect at construction	Residential and recreational	Negligible adverse (not significant)
Size/scale, duration and reversibility of impact at operation		
<p>Installations, such as the ammonia tank, and taller structures associated with East and West Site have the potential to be partially visible on the skyline although mature intervening vegetation would screen a large proportion of the Project.</p> <p>The Project would introduce large new structures into the scene, although these may not be immediately apparent to the casual observer due to the distance proximity of the receptor from these structures and the scale of other detracting features closer to the receptor. The Project is not out of context within the receiving landscape, however, the presence of detracting features within the horizon would increase.</p> <p>The impact of the Project is long term and reversible. The Project is likely to result in a barely perceptible deterioration of the existing view.</p> <p>The overall impact at operation is assessed as a small size/scale of change in the view, over a very small geographical extent, long term and reversible and therefore a very low magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		
Magnitude of impact at operation		Very Low
Significance of effect at operation	Residential and recreational	Negligible adverse (not significant)

Viewpoint 9: B1210 adjacent to railway line				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
518447, 412430	Users of the local road	3.6	2.4km	North
Visual susceptibility to change		Value of view		Sensitivity of receptor
Road travelling across the railway bridge, but otherwise through a flat landscape with open views across large former arable fields. Vegetation cover is generally low. Overhead wires and pylons traverse the landscape and various industrial facilities, and mature trees enclose the horizon. The susceptibility of the receptor is assessed to be low.		Low		Low
Size/scale, duration and reversibility of impact at construction				
<p>Views of high-level construction activity, such as cranes for installations within the East Site (Work No. 3 and Work No. 5) and West Site (Work No. 7) are likely to be visible behind mature vegetation and existing structures on the horizon. Lower-level construction activity associated with the Project would be screened by existing intervening vegetation and built form.</p> <p>All construction activity associated with the marine infrastructure (Work No. 1) is unlikely to be visible from this location due to the distance of the receptor and intervening vegetation and surface features.</p> <p>The addition of cranes into the landscape would contribute additional vertical and detracting features into the scene, however, these are in context with the landscape character.</p> <p>Construction activity would be phased with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term. Construction activity is likely to result in a change barely perceptible within the view.</p> <p>The overall impact at construction is assessed as a small size/scale of change in the view, over a very small geographical extent, short term and reversible and therefore a very low magnitude. The sensitivity is assessed as low and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>				
Magnitude of impact at construction				Very Low
Significance of effect at construction		Road users	Negligible adverse (not significant)	
Size/scale, duration and reversibility of impact at operation				
<p>Installations, such as the ammonia tank, and taller structures associated with East and West Site have the potential to be partially visible on the skyline although mature intervening vegetation would screen a large proportion of the development.</p> <p>The Project would introduce large new structures into the scene, although these may not be immediately apparent to the casual observer due to the proximity of the receptor from these</p>				

Viewpoint 9: B1210 adjacent to railway line		
<p>structures and the scale of the development in relation to similar developments. The Project is not out of context within the receiving landscape, however, the presence of detracting features within the horizon would increase.</p> <p>The impact of the Project is long term and reversible. The Project is likely to result in a barely perceptible deterioration of the existing view.</p> <p>The overall impact at operation is assessed as a small size/scale of change in the view, over a very small geographical extent, long term and reversible and therefore a very low magnitude. The sensitivity is assessed as low and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		
Magnitude of impact at operation		Very Low
Significance of effect at operation	Road users	Negligible adverse (not significant)

Viewpoint 10: Public Right of Way and proposed England Coast Path				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
518160, 417989	Users of the PRow	3.6	3.5km	South-east
Visual susceptibility to change		Value of view		Sensitivity of receptor
Users of the coastal path travelling south along the flood defences. Views are open and extensive across the Humber Estuary. Industry both marine and landside is dominant and erodes tranquillity. The susceptibility of the receptor is assessed to be medium due to the nature of the views.		Low		Medium to low
Size/scale, duration and reversibility of impact at construction				
<p>Views of high-level construction activity, such as cranes for installations within the East Site (Work No. 3 and Work No. 5) and for the marine infrastructure (Work No. 1) have the potential to be visible behind the existing structures associated with the Oil Terminal. Lower-level construction activity associated with the Project would be screened by built form and intervening vegetation.</p> <p>Construction activity associated with the pipelines would not be visible due to large intervening surface features.</p> <p>The addition of cranes into the landscape would contribute additional vertical and detracting features into the scene, however, these are in context with the landscape character and would not be discernible within the existing context.</p>				

Viewpoint 10: Public Right of Way and proposed England Coast Path		
<p>Construction activity would be phased over with the majority of the works described above occurring during Phase 1 over a period of three years. The duration is therefore short term. Construction activity is likely to result in a change barely perceptible within the view.</p> <p>The overall impact at construction is assessed as a small size/scale of change in the view, over a small geographical extent, short term and reversible and therefore a very low magnitude. The sensitivity is assessed as medium to low and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		
Magnitude of impact at construction		Very Low
Significance of effect at construction	Recreational	Negligible adverse (not significant)
Size/scale, duration and reversibility of impact at operation		
<p>Installations, such as the ammonia tank (Work No 3A), and other taller structures associated with the East Site (Work No. 3 and Work No. 5) have the potential to be visible on the skyline although existing intervening mature vegetation would screen a large proportion of the Project.</p> <p>The Project would introduce large new structures into the scene, although these may not be immediately apparent to the casual observer due to the presence of similar industrial elements across the view. The Project is not out of context within the receiving landscape.</p> <p>The impact of the Project is long term and reversible. The Project is likely to result in a barely perceptible deterioration of the existing view.</p> <p>The overall impact at operation is assessed as a small size/scale, over a small geographical extent, long term and reversible and therefore a very low magnitude. The sensitivity is assessed as medium to low and therefore, the Project would result in a negligible adverse effect on visual amenity at this location.</p>		
Magnitude of impact at operation		Very Low
Significance of effect at operation	Recreational	Negligible adverse (not significant)

Viewpoint 11: Kings Road				
Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Project (km)	Direction of view
519676 414814	Residents of properties on Queens Road	2	>10m	East
Visual susceptibility to change		Value of view		Sensitivity of receptor
Residential receptors located at close proximity to the West Site. Views of the Project are likely from first floor windows and principle living areas in locations where intervening boundary features do not exist.		Low		Medium

Viewpoint 11: Kings Road		
<p>It is assessed that the susceptibility of the residential receptors is high due to the nature of the receptor and proximity to the Project.</p> <p>It is expected that these residential receptors will be acquired to facilitate the Project.</p>		
Size/scale, duration and reversibility of impact at construction		
<p>Potential views of construction activity associated with the West Site (Work No. 7) are expected to be visible at close to mid-range and would extend across the entire view to the rear of the residential receptors. High-level construction activity associated with the East Site (Work No 3. and Work No. 5) may be visible in the distance to the north, and construction activity associated with the pipeline may be visible east where there are no intervening landscape elements or built form.</p> <p>Construction activity associated with the West Site (Work No. 7) is likely to be noticeable within the view to the rear of the residences with machinery, site welfare cabins, fencing and heavy vehicles present within the foreground. Pipeline construction may include the clearing of surface vegetation and the digging of open trenches within the field to the foreground, however, details are yet to be confirmed.</p> <p>Construction activity would be phased with the majority of the works occurring during Phase 1 over a period of three years. Construction activity during Phases 2 to 6 occur over a seven-year period and include the additions of converters and liquefiers within the East and West Sites. The duration is therefore short term. Construction activities are likely to result in a noticeable deterioration in the view to the west of the residential receptors over a large area and at close proximity to the receptor. The nature of the impact is assessed as adverse.</p> <p>The overall impact at construction is assessed as a large size/scale change in the view, over a large geographical extent, short term and reversible and therefore a high magnitude. The sensitivity is assessed as medium and therefore, the Project would result in a major adverse effect (which is significant) on visual amenity at this location.</p>		
Magnitude of impact at construction		High
Significance of effect at construction	Residential	Major adverse (significant)

Construction (and Decommissioning)

- 13.8.15 During Project construction (and decommissioning of the hydrogen production facility) there would be changes in the view through the addition of detracting visual features associated with the construction process, visual disturbance, and the progressive introduction of new large-scale structures at various stages of development. The visual effects at the construction stage are assessed to be short term and reversible.

- 13.8.16 As detailed in **Table 13-9**, the assessment indicates that potential significant adverse visual amenity effects could be experienced at a number of representative viewpoints as follows during the construction phase:
- Viewpoint 2 (PRoW and proposed England Coast Path), major adverse significant effect.
 - Viewpoint 3 (PRoW and proposed England Coast Path), major adverse significant effect.
 - Viewpoint 11 (Residential receptors located on Queens Road), major adverse significant effect.

Operation

- 13.8.17 The visibility of the Project across a large extent of the study area is likely due to limited intervening vegetation and built form within a flat landscape. The Project would introduce new, large structures and vertical elements into a landscape where these features are already present. When viewed from within the landscape, these new structures would be viewed within the context of existing similar structures within relatively close range.
- 13.8.18 The introduction of this industrial development within a substantial landscape framework would not be uncharacteristic when set within the existing attributes of the local receiving landscape. This includes the existing development and infrastructure.
- 13.8.19 The visual effects at operation are assessed to be long term and reversible for landside infrastructure and permanent for marine infrastructure.
- 13.8.20 As detailed in **Table 13-9**, the assessment indicates that potential significant adverse visual amenity effects could be experienced at a number of representative viewpoints as follows during the operational phase:
- Viewpoint 2 (PRoW NKIL50 and proposed England Coast Path), moderate adverse significant effect.
 - Viewpoint 3 (PRoW Bridleway 36 and proposed England Coast Path), moderate adverse significant effect.

13.9 Mitigation and Enhancement Measures

- 13.9.1 Major adverse (significant) visual amenity effects have been assessed for Viewpoint 2 (PRoW NKIL50 Proposed England Coast Path) and Viewpoint 3 (PRoW Bridleway 36 and Proposed England Coast Path) for PRoW users during construction and moderate adverse (significant) visual effects at operation of the Project. Major adverse (significant) visual amenity effects have been assessed for Viewpoint 11 (Queens Road) for residential receptors during construction. No further significant effects have been assessed for the Project during construction or operation.

- 13.9.2 The opportunity for mitigation of the visual effects of the Project at Viewpoint 2 and Viewpoint 3 is limited due to the size and scale of the Project. It is considered that the addition of landscape features such as trees and woodland would not be effective in reducing these effects on visual amenity.
- 13.9.3 The final finishes of the buildings and structures and exact sizes of component parts will not be finalised until the final detailed design is complete.
- 13.9.4 An **Outline Woodland Compensation Strategy [TR030008/APP/6.8]** has been prepared. This Strategy sets out the approach which will be used to compensate for the tree loss from the Long Strip woodland. The approach is to provide compensatory tree planting, in accordance with local guidance, within a defined area within ABP's wider Immingham port estate. Implementation of the strategy would be secured by a Requirement of the **draft DCO [TR030008/APP/2.1]**.

13.10 Assessment of Residual Effects

- 13.10.1 The assessment has determined that receptors at Viewpoints 2, 3 and 11 are likely to experience significant short-term adverse effects during the construction phase of the Project as a result of the close distance to the proposed infrastructure and limited intervening vegetation.
- 13.10.2 Effects are assessed to remain significant during operation for receptors at Viewpoints 2 and 3 due to the sensitivity of these receptors (recreational) and the close distance of these receptors to the Project. Viewpoints 2 and 3 are located within a short distance from each other and represent the worst-case scenario for transient views experienced by recreational receptors using the proposed England Coast Path and bridleway.

Table 13-10: Summary of potential impact, mitigation measures and residual effects

Development Stage	Environmental effect (following development design and impact avoidance measures)	Classification of effect prior to mitigation	Mitigation/ enhancement (if identified)	Classification of residual effect after mitigation	Nature of effect(s) (Long term (Lt)/ Medium term (Mt)/ Short term (St) and Permeant (P)/ Temporary (T))
Construction	Impact on landscape character to the Site and its immediate setting	Moderate adverse (significant)	None	Moderate adverse (significant)	St/T
Construction	Impact on recreational users at viewpoint 2 PRow and proposed England Coast Path Route	Major adverse (significant)	None	Major adverse (significant)	St/T
Construction	Impact on recreational users at viewpoint 3 bridleway/ PRow and proposed England Coast Path Route	Major adverse (significant)	None	Major adverse (significant)	St/T
Construction	Impact on residential receptors located on Queens Road at viewpoint 11	Major adverse (significant)	None	Major adverse (significant)	St/T

Development Stage	Environmental effect (following development design and impact avoidance measures)	Classification of effect prior to mitigation	Mitigation/ enhancement (if identified)	Classification of residual effect after mitigation	Nature of effect(s) (Long term (Lt)/ Medium term (Mt)/ Short term (St) and Permeant (P)/ Temporary (T))
Operation	Impact on recreational users at viewpoint 2 PRow and proposed England Coast Path Route	Moderate adverse (significant)	None	Moderate adverse (significant)	Lt/T
Operation	Impact on recreational users at viewpoint 3 bridleway/ PRow and proposed England Coast Path Route	Moderate adverse (significant)	None	Moderate adverse (significant)	Lt/T
* Long term (Lt)/Medium term (Mt)/Short term (St) and Permeant (P)/Temporary (T) and Direct (D)/Indirect (In)					

13.11 Summary of Assessment

Landscape and Seascape Effects

- 13.11.1 The landscape and seascape effects have been assessed at national, regional, local and Site level and are described in full in **Table 13-7** for the construction and decommissioning phase of the Project and in **Table 13-8** for the operational phase of the Project.

Construction

- 13.11.2 The identified landscape and seascape effects range from negligible or minor adverse (for national, regional, and local landscape receptors) to moderate adverse for effects at the Site level. The Project is expected to result in significant landscape effects at the Site level as a result of construction activity, use of farmland for temporary laydown and the removal of vegetation including sections of Long Strip.
- 13.11.3 No other significant effects are anticipated to the identified landscape and seascape receptors during construction (and decommissioning) of the Project due to the existing industrial context and ongoing port activity.

Operation

- 13.11.4 During Project operation, the aesthetic and perceptual qualities would remain similar to the present, with large-scale static structures visible within the wider landscape. Due to the setting of the Project, it is assessed that the effects would result in a minor adverse effect to the existing landscape character at a local scale and a negligible effect at a regional or national scale.
- 13.11.5 Overall, the influence of the Project would be limited to the localised landscape immediately adjacent to the Site Boundary and therefore no significant landscape or seascape effects are identified.

Visual Effects

- 13.11.6 The visual effects were assessed at 11 viewpoints and represent the likely views experienced by a range of visual receptors, including residential, recreational, commercial, and road users. The visual effects are described in detail within **Table 13-10**.

Construction

- 13.11.7 During Project construction (and decommissioning of the hydrogen production facility) there would be changes to views through the addition of detracting visual features associated with the construction process, visual disturbance, and the progressive introduction of new large-scale structures at various stages of development. The removal of vegetation including sections of Long Strip would open localised views of construction activity. This would result in short-term significant adverse effects at three representative viewpoints. Short term significant visual effects for the construction phase would be limited to viewpoints located adjacent to the Site Boundary.

Operation

- 13.11.8 During the operational phase of the Project, the visual influence of the Project would be limited to the localised landscape immediately adjacent to the Site Boundary. This would result in long term significant effects for receptors at two representative viewpoints where recreational receptors have been identified.
- 13.11.9 The impacts assessed for viewpoints located further from the Site Boundary range between negligible and minor adverse due to intervening vegetation and built form and the Project's location in context with existing detracting features within the industrial landscape.

13.12 References

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- Ref 13-2 Department for Transport (2012). National Policy Statement for Ports (NPSfP).
- Ref 13-3 Department of Energy and Climate Change (DECC) (2021). National Policy Statement for Energy (EN-1).
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- Ref 13-5 Ministry of Housing, Communities and Local Government (updated 2021). National Planning Policy Framework (NPPF).
- Ref 13-6 Ministry of Housing, Communities and Local Government (2021). The National Planning Practice Guidance (NPPG): National Design Guide.
- Ref 13-7 North Lincolnshire Council (2022). North Lincolnshire Local Plan Publication Draft Addendum Plan.
- Ref 13-8 North East Lincolnshire Council (2018). North East Lincolnshire Local Plan.
- Ref 13-9 East Riding of Yorkshire Council (2016). East Riding Local Plan.
- Ref 13-10 North Lincolnshire Council (2011). The North Lincolnshire Local Development Framework Development Plan Document – Core Strategy.
- Ref 13-11 Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment Third Edition.
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- Ref 13-13 Landscape Institute (2021). Technical Guidance Note (TGN) 04/2021: Assessing landscape value outside national designations.
- Ref 13-14 Landscape Institute (2021). Technical Guidance Note (TGN) 04/2020: Infrastructure.
- Ref 13-15 The Planning Inspectorate (2012). Planning Inspectorate Guidance Note Nine: Using the Rochdale Envelope.
- Ref 13-16 Mapping data from Natural England.
- Ref 13-17 Mapping data from Historic England.
- Ref 13-18 Google Earth.
- Ref 13-19 Google Street View.
- Ref 13-20 MAGIC open source data.
- Ref 13-21 AECOM Geospatial Information.

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- Ref 13-23 Natural England (2014). National Character Area 41: Humber Estuary.
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- Ref 13-27 English Heritage and Lincolnshire County Council (2011). The Historic Character of The County of Lincolnshire.
- Ref 13-28 East Riding of Yorkshire Council (2018). East Riding of Yorkshire Landscape Character Assessment.
- Ref 13-29 North East Lincolnshire Council(2010). North Lincolnshire Landscape Character Assessment.
- Ref 13-30 North Lincolnshire Council (2022). North Lincolnshire Local Plan: Stage 5: Publication Draft Addendum.
- Ref 13-31 Natural England (2021). England Coast Path Stretch: Mablethorpe to Humber Bridge – Report MHB 3: Humberston to Immingham Docks.
- Ref 13-32 FPCR, Environment and Design Ltd (2015). North East Lincolnshire Landscape Character Assessment Sensitivity and Capacity Study.
- Ref 13-33 Estell Warren Landscape Architects on behalf of North Lincolnshire Council (1999). North Lincolnshire Character Assessment and Guidelines.
- Ref 13-34 DEFRA (2009). Construction Code of practice for the Sustainable Use of Soils.
- Ref 13-35 The British Standard (2012). Trees in Relation to Design, Demolition and Construction to Construction - Recommendations (BS 5837).
- Ref 13-36 JBA Consulting on behalf of North Lincolnshire Council (n.d.). North Lincolnshire Landscape Character Assessment – a review by JBA Consulting on behalf of North Lincolnshire Council (no publication date).
- Ref 13-37 North East Lincolnshire Council (2010). Landscape Character Assessment.
- Ref 13-38 Natural England (2021). England Coast Path Stretch: Mablethorpe to Humber Bridge. Report MHB 3: Humberston to Immingham Docks. Map MHB 3I: North Beck Drain to Queens Road.
- Ref 13-39 National Forest (2018). National Forest Inventory Woodland Map.