

The Lighthouse Green Fuels Order

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Contents

Abbreviations	1
2 Assessment Methodology.....	2
2.1 Introduction.....	2
2.2 Approach to EIA	2
Overview.....	2
2.3 EIA Scoping.....	3
2.4 Assumptions and limitations	5
2.5 Parameters, uncertainty and flexibility	6
2.6 Consultation and engagement on the EIA.....	7
2.7 Baseline conditions.....	8
Existing baseline.....	8
Future baseline.....	8
2.8 Spatial and temporal scope	9
2.9 Assessment of effects.....	10
Significance of effect	10
Assigning value of receptors	10
Magnitude of impact	11
Assigning significance	12
Inter-related effects and interdependencies	13
2.10 Mitigation measures.....	16
2.11 Other supporting studies.....	17
Introduction.....	17
Habitats Regulations Assessment.....	17
Water Framework Directive/Water Environment Regulations Assessment	18
Flood Risk Assessment	19
Transport Assessment.....	19
2.12 Monitoring.....	19
Overview.....	19
2.13 Cumulative and combined effects	19
Introduction.....	19
Combined effects.....	20
Cumulative effects	20
References.....	21

Tables

Table 2.1	Summary of Proposed Scope of EIA.....	4
Table 2.2	Baseline Scenarios.....	10
Table 2.3	Indicative environmental sensitivity of a receptor	11
Table 2.4	Indicative magnitude of impact.....	12
Table 2.5	Indicative significance of effect.....	12
Table 2.6	Indicative significance of effects definitions	13
Table 2.7	Inter-relationships between environmental topics in this ES.....	14

Abbreviations

Abbreviation	In full
CEA	Cumulative Effects Assessment
CHP	Combined Heat and Power
DCO	Development Consent Order
EIA	Environmental Impact Assessment
The EIA Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
ES	Environmental Statement
fCEMP	Framework Construction Environmental Management Plan
FRA	Flood Risk Assessment
ISEP	Institute of Sustainability and Environmental Professionals
MWe	megawatt electrical
NPPF	National Planning Policy Framework
NSIP	Nationally Significant Infrastructure Project
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
SAC	Special Area of Conservation
SAF	Sustainable Aviation Fuel
SPA	Special Protection Area
The WER	The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

2 Assessment Methodology

2.1 Introduction

- 2.1.1 This chapter provides an overview of the approach to the Environmental Impact Assessment (EIA), including the approach to the assessment scenarios and general methodology used to provide consistency across technical assessment topics.
- 2.1.2 An EIA is a staged, iterative process. This Environmental Statement (ES) reports the findings of the EIA process and has been prepared to satisfy the requirements of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017 No. 572) ('the EIA Regulations') [Ref 1] and relevant guidance. Each stage is described in the following sections.
- 2.1.3 The scope and adopted methodologies of assessment for each of the investigated environmental aspects are outlined in the corresponding technical chapters (**Chapters 8 to 21 in ES Volume I, Application Document Ref. 6.1**) where they depart from this general methodology.

2.2 Approach to EIA

Overview

- 2.2.1 EIA is a systematic process that examines the likely significant effects (beneficial or detrimental) on the environment resulting from the future construction, operation and decommissioning of a proposed development. The findings of an EIA are presented in an ES, which can then be used to inform the decision-maker and the public about the possible environmental implications of a development and help the decision-maker (which for a Development Consent Order (DCO) is the relevant Secretary of State (SoS) to determine the application for consent.
- 2.2.2 The process and content of an EIA is summarised in Regulation 5 of the EIA Regulations [Ref 1]. Central to the process is the preparation of the ES and the carrying out of associated procedural steps, including consultation, publicity, and notification. The Proposed Development involves the construction and operation of a Sustainable Aviation Fuel (SAF) production facility with associated Combined Heat and Power (CHP) plant and constitutes EIA development in part because the on-site biomass and waste wood fuelled CHP plant of up to 200 megawatt electrical (MWe) is covered under Schedule 2 of the EIA Regulations (2017) under 3(a) "*Industrial installations for the production of electricity, steam and hot water - if exceeding 0.5ha*". As the Proposed Development requires development consent pursuant to The Planning Act (PA 2008), the processes set out, and documents stated within The Infrastructure Planning (Applications:

Prescribed Forms and Procedure) Regulations 2009 (as amended) (2009 Regulations) [Ref 2] must be followed and prepared. This includes *"the environmental statement required ... and any scoping or screening opinions or directions"*.

2.2.3 The main stages of the EIA process within a DCO application are as follows:

- EIA Screening: screening can be undertaken to determine whether a proposed project constitutes 'EIA development', in cases where it is not clear if a project requires an EIA to be undertaken. For this project, the Applicant concluded that the Proposed Development is described in Schedule 2 to the EIA Regulations and therefore had the potential to result in significant environmental effects. As such, the Applicant informed the Planning Inspectorate (PINS) the intent to submit an application for development consent that would include an ES;
- EIA Scoping: scoping refers to the process of consultation with PINS and relevant consultees to identify the scope of assessment and the methodology to be employed for any particular assessment, described in further detail below. A notification under Regulation 8 (of the EIA Regulations) [Ref 1] was submitted to the SoS along with the EIA Scoping Report and confirmed that the Applicant intended to submit an Application for development consent, to include an ES;
- Preliminary Environmental Information Report (PEIR): The PEIR sets out the information that the Applicant has compiled and *"is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development"* (Regulation 12(2) of the EIA Regulations) and as set out PINS Pre-Application Advice on Environmental Impact Assessment [Ref 16]; and
- ES: The ES (this document) presents the results of the EIA undertaken for the Proposed Development. It sets out the likely significant effects that would result if the Proposed Development was constructed, and any proposed mitigation to reduce those significant effects. An ES is submitted as part of the application for development consent and considered during the decision-making process.

2.3 EIA Scoping

2.3.1 Although scoping is not a mandatory requirement under the EIA Regulations, it is recognised as a useful preliminary procedure which helps to identify the main effects that a proposed development is likely to have on the environment and should therefore be assessed and reported in the ES.

- 2.3.2 An EIA Scoping Report (accompanied by the screening notification from the Applicant confirming the intention to prepare an ES) was prepared and submitted to PINS on 01 October 2025 with a request for the SoS to adopt a scoping opinion in relation to the Proposed Development. In considering the request for a scoping opinion, the SoS consulted with the relevant statutory stakeholder bodies. The Scoping Opinion was issued by PINS on 11 November 2025. The **EIA Scoping Report** and **Scoping Opinion** are provided in **Appendix 2A: EIA Scoping Report** and **Appendix 2B: Scoping Opinion (ES Volume III, Application Document Ref. 6.3)**.
- 2.3.3 Chapter 8 to 21 of the ES (**ES Volume I, Application Document Ref. 6.1**) address the key issues raised in the Scoping Opinion or direct the reader to the appropriate document within the DCO application documentation.
- 2.3.4 Prior to and following receipt of PINS's Scoping Opinion and associated consultee responses, the Applicant has engaged with stakeholders including PINS to inform further EIA work to be undertaken and to provide clarifications. A summary of the agreed scope of the EIA is presented in Table 2.1.

Table 2.1 Summary of Proposed Scope of EIA

Environmental topic and ES Volume I Chapter number (Application Document Ref. 6.1)	Scoped in/ out of the ES	Notes
Chapter 8: Air Quality	In	-
Chapter 9: Noise and Vibration	In	-
Chapter 10: Terrestrial Ecology	In	-
Chapter 11: Freshwater and Marine Ecology	In	-
Chapter 12: Water Environment	In	-
Chapter 13: Landscape and Visual Amenity	In	-
Chapter 14: Greenhouse Gas Emissions	In	-
Chapter 15: Climate Change Resilience	In	-
Chapter 16: Materials and Waste	In	-
Chapter 17: Socioeconomics	In	-
Population and Human Health	In	Included in Chapter 17: Socioeconomics
Chapter 18: Traffic and Transport	In	-
Chapter 19: Major Accidents and Disasters	In	-
Chapter 20: Marine Navigation	In	-

Environmental topic and ES Volume I Chapter number (Application Document Ref. 6.1)	Scoped in/ out of the ES	Notes
Cultural Heritage	Out	-
Chapter 21: Geology and Soils	In	-

2.3.5 In preparing this ES, reference has been made to relevant guidance and advice. This has included the following:

- Overarching National Policy Statement (NPS) for Energy (EN-1) [Ref 3];
- Overarching NPS for Renewable Energy Infrastructure (EN-3) [Ref 4];
- Overarching NPS for natural gas supply infrastructure and gas and oil pipelines (EN-4) [Ref 5];
- National Planning Policy Framework (NPPF) [Ref 6];
- PINS's Advice Page: Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents [Ref 7];
- PINS's Advice Page: Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment [Ref 8];
- PINS's Advice Page: Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments [Ref 13];
- PINS's Advice Page: Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive [Ref 14];
- PINS's Advice Page: Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process [Ref 15]; and
- PINS's Advice Page: Pre-Application Advice on Environmental Impact Assessment [Ref 16].

2.4 Assumptions and limitations

2.4.1 In accordance with the EIA Regulations, difficulties encountered during assessment work, and the limitations and assumptions used for individual assessment areas are set out in each chapter of this ES.

2.4.2 Limitations that apply more widely across the ES chapters include:

- baseline conditions are specific to each aspect of the environment and are considered to be accurate at the time when surveys are undertaken. However, it is recognised that environmental conditions may change

during the course of the Proposed Development, and so these are described as appropriate as part of the future baseline;

- the assessment presented in this ES is based on the information available at the time of writing as to the approach to construction methods, phases and programme described in **Chapter 5: Construction Programme and Management (ES Volume I, Application Document Ref. 6.1)**; and
- the assessment of cumulative effects is dependent on the availability of information at the time of assessment in relation to other identified developments.

2.4.3 Good industry practice guidance from the Institute of Sustainability and Environmental Professionals (ISEP) has also informed the assessment. The growing industry emphasis on proportionate assessment is relevant to this ES and as such this Application reflects those aspects of the environment with potential to have significant effects and clarifies those areas where there is little reasonable potential for this to occur.

2.4.4 Unless stated otherwise, any references to legislation within the ES are as amended and in force at the time of compiling this report.

2.5 [Parameters, uncertainty and flexibility](#)

2.5.1 As discussed in **Chapter 4: Proposed Development (ES Volume I, Application Document Ref 6.1)**, final detailed design decisions have yet to be taken for the Proposed Development and exact dimensions and positions for each component cannot be fixed, which is in line with the approach to applications for a DCO. This is to maintain appropriate flexibility to meet technical and safety requirements and meet the changing demands of the UK market at the time construction of the Proposed Development will be undertaken. This is in accordance with PINS's Pre-Application Advice on Environmental Impact Assessment [Ref 16]. The 'Rochdale Envelope' approach has therefore been applied within the EIA process to ensure a robust assessment of the likely significant environmental effects of the Proposed Development. This approach involves assessing the maximum and, where relevant, minimum parameters for the elements where flexibility is sought, recognising that the worst-case parameter for one technical assessment may differ from another. Where this approach is applied, it has been confirmed within the relevant chapters.

2.5.2 These parameters have been used in the assessment of significance of effects in each of the technical topic chapters (**Chapters 8 to 21 (ES Volume I, Application Document Ref 6.1)**) and within the cumulative

assessment (**Chapter 22: Cumulative and Combined Effects (ES Volume I, Application Document Ref. 6.1))** and are described within those chapters.

- 2.5.3 These parameters have been adopted for use within the technical assessments to provide a robust assessment based on reasonable and appropriate worst-case assumptions, such as maximum dimensions of structures for visual effects assessment and minimum stack heights for air quality modelling. Where appropriate flexibility is to be retained in the DCO application, the EIA assesses the likely worst-case envelope (**see ES Volume I Chapter 4: The Proposed Development (Application Document Ref. 6.1))**).

2.6 Consultation and engagement on the EIA

- 2.6.1 Effective and meaningful engagement and consultation with stakeholders is relevant to developing the design of the Proposed Development and to undertaking a comprehensive EIA. Statutory consultation was undertaken between 2 December 2025 and 13 January 2026. The issues raised through the consultation process and how these have been considered and addressed within the design evolution of the Proposed Development and the EIA are set out in the **Consultation Report (Application Document Ref. 5.1)**. Each technical chapter of this **ES (Chapters 8 to 21) (ES Volume I, Application Document Ref 6.1)** also summarises the consultation comments that are relevant to the technical discipline and how these have been addressed by the EIA.
- 2.6.2 A number of meetings have taken place with stakeholders to share information on the Proposed Development and the approach to environmental assessment including, but not limited to, the following:
- Stockton-on-Tees Borough Council;
 - Redcar and Cleveland Borough Council;
 - Environment Agency;
 - Natural England; and
 - Marine Management Organisation.
- 2.6.3 In addition to engagement with relevant statutory consultees, the Applicant has been in discussions with land interests affected by the Proposed Development.
- 2.6.4 Additional targeted consultation was also undertaken between 13 April and 13 May 2026 in relation to modifications of the Site boundary and the

construction methodology. These were assessed within the PEIR addendum. This additional consultation was restricted to affected parties.

2.7 Baseline conditions

Existing baseline

- 2.7.1 To predict the potential environmental effects of the Proposed Development, it is important to establish the baseline conditions that currently exist within the Site and its surroundings, in the absence of any development.
- 2.7.2 Detailed environmental information relating to the existing environmental baseline has been collected. This baseline information has been gathered from various sources, including:
- online and digital resources;
 - data searches, for example Local Biological Record Centres and Historic Environment Records;
 - baseline site surveys;
 - available environmental information submitted in support of other planning applications for development in the vicinity of the Proposed Development;
 - anecdotal evidence from local specialists; and
 - local historical data records.
- 2.7.3 The current environmental and physical conditions of the relevant study areas ('the baseline') have been established, so that a comparison of future changes from the Proposed Development can be understood, and potentially significant effects can be identified.
- 2.7.4 Site visits, walkover surveys and desk-based baseline data collection have been undertaken to determine the baseline conditions. Details of specific visits and survey results are provided in the technical chapters of the ES (**Chapters 8 to 21, ES Volume I, Application Document Ref 6.1**), together with any relevant limitations and assumptions.

Future baseline

- 2.7.5 Where relevant, the environmental conditions in the future (e.g. increases in sea level due to climate change) have been considered so that the impact of the Proposed Development can be assessed against the baseline conditions that would occur in the future without the Proposed Development being constructed and operated (the 'future baseline'). Where future conditions are considered relevant, and likely to change to the extent that

they need to be considered, they are described at the end of the baseline section of each technical assessment chapter of the ES (**ES Volume I, Application Document Ref. 6.1**).

- 2.7.6 The future baseline can also change as a result of other developments being constructed within the study areas or zones of influence used in the assessment of a proposed development. **Chapter 22: Cumulative and Combined Effects (ES Volume I, Application Document Ref 6.1)** describes how other developments are identified, information gathered, and cumulative effects assessed. The cumulative assessment follows advice from PINS on Cumulative Effects Assessment (CEA) [Ref 8], which states:

“Where other existing and, or approved developments, are expected to be completed before construction of the proposed Nationally Significant Infrastructure Project (NSIP) and the effects are fully determined, effects arising from them should be considered as part of the baseline and may be considered as part of both the construction and operational assessment.

If the effects of other existing and, or approved development under construction are not yet fully determined, for example the outcome of mitigation is being monitored and is not yet known, it may be appropriate to consider these in the CEA.”

- 2.7.7 The other developments identified as part of the cumulative effects assessment include developments which are planned to be completed before construction of the Proposed Development, and have effects determined, and therefore have been considered as part of the future baseline in this ES.

2.8 Spatial and temporal scope

- 2.8.1 Spatially, the area over which effects could occur may be wider than the Site boundary. The appropriate study area has been determined for each environmental topic and set out in **Chapters 8 to 21 (ES Volume I, Application Document Ref 6.1)**. Specific study areas are defined in each technical chapter and allow for assessment of indirect as well as direct effects, together with relevant factors outside of the Proposed Development, such as proposed traffic routes. They are also used to inform the assessment of cumulative effects in **Chapter 22: Cumulative and Combined Effects (ES Volume I, Application Document Ref 6.1)**.
- 2.8.2 Specific temporal periods are defined for the assessment of baseline conditions and the impacts of the Proposed Development. In doing so, consideration is given to the worst-case durations of construction and operational activities. Where relevant, consideration is given to the duration it could take for environmental design measures to become established and

effective. Timeframes for which mitigation measures are likely to have achieved their desired outcome have been defined within the relevant chapters of the ES.

- 2.8.3 The assessment considers effects at the construction, operation and decommissioning phases. The definitions of these are presented in Table 2.2. The future baseline scenario describes the changes from the current baseline scenario as far as natural changes can be established. Although it is noted that if the Proposed Development was not constructed, the Main Site would continue to be a cleared and derelict industrial site.

Table 2.2 Baseline Scenarios

Baseline Scenarios	Description
Construction phase – current baseline (Year One)	This relates to all works associated with construction of the Proposed Development.
Operational phase – future baseline (from Year Four)	This relates to effects once the Proposed Development is installed and in use.
Decommissioning phase – future baseline (after Year 25)	This relates to effects at the end of operation as the Proposed Development is shut down. The decommissioning year will take place following the operation of the Proposed Development, which is expected to be at least 25 years from the date of commissioning. Decommissioning is expected to take one to two years and will be undertaken in accordance with the relevant DCO Requirement and the Environment Agency decommissioning plan.

2.9 Assessment of effects

Significance of effect

- 2.9.1 The likely effect that the Proposed Development may have on identified environmental receptors is influenced by a combination of the sensitivity or importance of the receptor and the predicted magnitude of impact on the receptor or change from the baseline conditions. The overall significance of the effect is generally assigned by the combination of both sensitivity of the receptor and magnitude of impact (unless otherwise specified in the topic-specific assessment methodology set out in Chapter 8 to 21 of the ES (**ES Volume I, Application Document Ref 6.1**)).

Assigning value of receptors

- 2.9.2 Receptors are defined as the physical or biological resource or human user group that would experience an effect of the Proposed Development, and these are identified as part of developing the baseline conditions.
- 2.9.3 The environmental effect of the Proposed Development on receptors depends on the spatial relationship between the source of the effect and the

receptor, the magnitude of the impact, as well as the environmental sensitivity of a receptor.

- 2.9.4 Assignment of environmental sensitivity of a receptor generally depends on the vulnerability, recoverability and value/importance of the receptor. Environmental sensitivity or importance is determined using the categories defined in each technical chapter's methodology. A typical example is presented in Table 2.3.
- 2.9.5 Where specific criteria for sensitivity/value have been used in accordance with good industry practice for a technical assessment, these are set out and used in the assessment.

Table 2.3 Indicative environmental sensitivity of a receptor

Sensitivity	Criteria
High	High importance and rarity, international level and very limited potential for substitution; unable to tolerate change.
Medium	High or medium importance and rarity, regional level and limited potential for substitution; limited capacity to tolerate change.
Low	Low or medium importance and rarity; and local level; capable of tolerating some change.
Negligible	Very low importance or rarity and local level; high capacity for change.

Magnitude of impact

- 2.9.6 Magnitude of impact is defined by the extent of change from the identified baseline conditions, irrespective of the value/sensitivity of a receptor.
- 2.9.7 The categorisation of the magnitude of impact considers the following factors where relevant:
- Extent;
 - Duration;
 - Frequency; and
 - Reversibility.
- 2.9.8 A typical set of magnitude criteria that are used in assessment is outlined in Table 2.4.

Table 2.4 Indicative magnitude of impact

Magnitude	Criteria
High	Total loss or major alteration to key elements/features of the baseline conditions.
Medium	Partial loss or alteration to one or more key elements/features of the baseline conditions.
Low	Minor shift away from baseline conditions.
Negligible	Very slight change from baseline conditions.

- 2.9.9 Where other specific magnitude criteria has been used, in accordance with good industry practice for any technical assessment, these are set out and used in the individual technical chapters.

Assigning significance

- 2.9.10 The level of significance is determined in each of the technical assessments and considers relevant topic-specific legislation, planning policy and guidance. Levels of significance of effects generally follow the example matrix outlined in Table 2.5 (unless topic-specific guidance requires an alternative approach, as set out in the Assessment Methodology section of the technical assessment chapters) and are either beneficial, neutral or adverse.

Table 2.5 Indicative significance of effect

	Magnitude of impact				
		High	Medium	Low	Negligible
Sensitivity of receptor	High	Major	Major	Moderate	Minor
	Medium	Major	Moderate	Minor	Negligible
	Low	Moderate	Minor	Negligible	Negligible
	Negligible	Minor	Negligible	Negligible	Negligible

- 2.9.11 A general description of Negligible, Minor, Moderate and Major effects is provided in Table 2.6. Typically, Moderate or Major effects are considered 'significant' in EIA terms, and Negligible or Minor effects are considered 'not significant'. The conclusion of the significance of each effect considers embedded design, good industry practice and additional mitigation measures which are required to reduce potential impacts that could otherwise result in significant effects.
- 2.9.12 This matrix approach is provided as an example and is not prescriptive. Professional judgement can be applied in determining the significance of an effect when the assessment is supported by a clear narrative to justify the conclusions reached and where there is a range of significance of an effect.

- 2.9.13 The technical assessments have generally adopted this approach to assigning significance. However, typically industry-specific guidance has been applied where available, and these specific criteria are stated in the technical chapters (**Chapters 8 to 21 of ES Volume I, Application Document Ref. 6.1**).
- 2.9.14 The likely residual effects of the Proposed Development are set out for each technical environmental assessment topic assuming implementation of all mitigation measures identified. This includes an assessment of significance of those effects in accordance with the identified criteria.

Table 2.6 Indicative significance of effects definitions

Significance rating	Definition
Major	These effects are likely to be key factors or important considerations at a regional or district scale but, if adverse, are potential concerns to the Proposed Development, depending upon the relative importance attached to the issue during the decision-making process. They are generally, but not exclusively, associated with sites and features of national importance and resources/features which are unique and which, if lost, cannot be replaced or relocated.
Moderate	These effects, if adverse, while important at a local scale, are not likely to be key decision-making issues. Nevertheless, the cumulative effect of such issues may lead to an increase in the overall effects on a particular area or on a particular resource.
Minor	These effects may be raised as local issues but are unlikely to be of importance in the decision-making process. Nevertheless, they are of relevance in the detailed design of the Proposed Development.
Negligible	Effects which are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Inter-related effects and interdependencies

- 2.9.15 It is recognised that different consultees have interests in different aspects of the environment. For ease of reference, Table 2.7 illustrates where inter-related effects (also known as combined effects) may arise (shaded in blue).

Table 2.7 Inter-relationships between environmental topics in this ES

	Chapter 8: Air Quality	Chapter 9: Noise and Vibration	Chapter 10: Terrestrial Ecology	Chapter 11: Freshwater and Marine Ecology	Chapter 12: Water Environment	Chapter 13: Landscape and Visual	Chapter 14: Greenhouse Gas Emissions	Chapter 15: Climate Change Resilience	Chapter 16: Materials and Waste	Chapter 17: Socioeconomics	Chapter 18: Traffic and Transport	Chapter 19: Major Accidents and Disasters	Chapter 20: Marine Navigation	Chapter 21: Geology and Soils
Chapter 8: Air Quality														
Chapter 9: Noise and Vibration														
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Chapter 17: Socioeconomics														
Chapter 18: Traffic and Transport														
Chapter 19: Major Accidents and Disasters														
Chapter 20: Marine Navigation														
Chapter 21: Geology and Soils														
Key:	Inter-related effect					No Inter-related effect					Not applicable			

2.10 Mitigation measures

- 2.10.1 This ES includes a description of the measures envisaged to avoid, reduce or otherwise mitigate adverse effects identified (including use of the mitigation hierarchy, where required). If necessary, monitoring may also be prescribed.
- 2.10.2 In line with ISEP Guidance and good industry practice, consideration will be given to key types of mitigation:
- **embedded mitigation** – measures that form part of the engineering and project design, developed through the iterative design process. These measures are secured through the development consent itself. The first stage of assessment is undertaken with embedded mitigation in place;
 - **good industry practice** – standard approaches and actions commonly used or required on infrastructure projects to avoid or reduce environmental impacts, and typically applicable across the whole project regardless of whether an EIA is undertaken. The first stage of assessment is undertaken with good industry practice in place, as reflected throughout this ES. In addition, a series of management plans are also provided as part of the DCO application, which incorporate standard good industry practice to be applied during the construction, operation and decommissioning of the Proposed Development; and
 - **further mitigation** – any additional project-specific measures identified during the EIA to avoid, reduce or offset potential impacts that could otherwise result in effects considered significant in the context of the EIA Regulations. Essential mitigation is identified within each environmental discipline, where required, taking into account the embedded mitigation and good practice commitments. The residual effects assessment is undertaken with further mitigation in place.
- 2.10.3 The Proposed Development has been through design development which has identified a number of measures that have been incorporated into the outline design principles for the Proposed Development. In addition, outline management plans are provided as part of the DCO application, as a mechanism for securing good industry practice and further mitigation measures. This includes **Appendix 5A: Framework Construction Environmental Management Plan (fCEMP) (ES Volume III, Application Document Ref. 6.3)**, which includes practices to manage contractor activities and minimise nuisance effects that the contractor will be obliged to implement.

2.11 Other supporting studies

Introduction

- 2.11.1 The DCO application is supported by several technical assessments undertaken and management plans prepared in line with specific and relevant policy or legislation. These provide additional information to inform the design, the potential effects of the Proposed Development and any mitigation measures. An outline of these is provided below for information.
- 2.11.2 For a description of the proposed construction, operation and decommissioning management plans, see **Chapter 4: Proposed Development (ES Volume I, Application Document Ref 6.1)**.

Habitats Regulations Assessment

- 2.11.3 The European Habitats Directive (92/43/EEC) [Ref 9] and the Council Directive (2009/147/EC) [Ref 10] were transposed into UK legislation through The Conservation of Habitats and Species Regulations 2017 [Ref 11] and in marine waters beyond 12 nautical miles, The Conservation of Offshore Marine Habitats and Species Regulations 2017 [Ref 12] (together, the ‘Habitats Regulations’). These regulations set out procedures for dealing with the effects of development on the National Site Network, which comprises Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) (to note, the National Site Network is sometimes still referred to as “European sites” across some guidance). Further to Section 96 of the Planning and Infrastructure Act 2025 [Ref 16], Ramsar sites (in certain circumstances) have the same protections as the National Site Network, which codifies what was previously a matter of policy under the NPPF. The Government applies the same procedures to possible SPAs, possible SACs and proposed Ramsar sites.
- 2.11.4 Guidance has been issued for regulators¹ setting out how a competent authority must decide if a plan or project proposal that affects a European site can go ahead. Guidance has also been prepared for applicants² on getting environmental advice on development proposals for Nationally Significant Infrastructure Projects. Updated advice³ for both competent authorities and applicants is currently being consulted upon.
- 2.11.5 Under Regulation 63 of the Habitats Regulations, an appropriate assessment is required where a plan or project, in this case an NSIP, is likely to have a significant effect upon a European site, either individually or

¹ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

² <https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals>

³ https://consult.defra.gov.uk/protected-sites/8c7b61c8/user_uploads/draft-hra-guidance-text.pdf

in combination with other projects. This information takes the form of a report.

- 2.11.6 Further to this, Regulations 64 and 68 provide that where an appropriate assessment has been carried out and results in a negative assessment, that is, the development will adversely affect the integrity of the site(s) despite any proposed avoidance or mitigation measures or if uncertainty remains, consent can only be granted if there are no alternative solutions, there are Imperative Reasons of Overriding Public Interest (IROPI) for the development, and compensatory measures have been secured that enhance the overall coherence of the National Site Network.
- 2.11.7 A Habitat Regulations Assessment Report, including the Appropriate Assessment has been prepared and submitted as part of the DCO Application (**Application Document Ref. 5.11**). This identifies whether significant effects are likely to occur to qualifying habitats and species associated with, for example, the Teesmouth and Cleveland Coast SPA and Ramsar; North York Moors SAC and SPA; Durham Coast SAC; Northumbria Coast SPA and Ramsar.

[Water Framework Directive/Water Environment Regulations Assessment](#)

- 2.11.8 The Water Framework Directive (2000) [Ref 18] was transposed into domestic law by The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 [Ref 19]. Following the United Kingdom's (UK) withdrawal from the European Union, these regulations were revoked and replaced by The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (the 'WER') [Ref 20]. The WER provide a structure for the protection and enhancement of surface freshwater, estuaries, coastal waters and groundwater.
- 2.11.9 The WER aim to enhance the status of all water bodies, with a target to achieve Good Ecological Status, and to prevent status deterioration of water bodies due to pollution. The requirements of the WER have been taken into account when planning all activities that may impact the water environment.
- 2.11.10 **Chapter 12: Water Environment (ES Volume I, Application Document Ref. 6.1)** details all surface water and groundwater receptors located within the study area of the Proposed Development. This includes a description of existing water quality, water quantity and WER status.
- 2.11.11 The **Water Environment Regulations Assessment (Application Document Ref. 5.10)** is provided as part of the DCO Application.

Flood Risk Assessment

- 2.11.12 A **Flood Risk Assessment (FRA) (Application Document Ref 5.7)** has been undertaken in accordance with national policy. The FRA considers flood risk both to and from the Proposed Development. It demonstrates how this risk will be managed, including with the influence of climate change.
- 2.11.13 In line with both NPS EN-1 [Ref 3] and the NPPF [Ref 6], a Sequential Test has been undertaken in the ES to demonstrate that there are no reasonably available sites in areas of lower risk and that the Proposed Development will be safe for its lifetime without increasing flood risk elsewhere.
- 2.11.14 The Environment Agency published new national risk information for flooding and coastal erosion (new National Flood Risk Assessment) on 25 March 2025 [Ref 21], which is incorporated in the FRA. The FRA also incorporates the latest planning practice guidance on Flood Risk and Coastal Change [Ref 22].

Transport Assessment

- 2.11.15 A **Transport Assessment** is included with the DCO Application as **Appendix 18A: Transport Assessment (ES Volume III, Application Document Ref. 6.3)** to accompany **Chapter 18: Traffic and Transport (ES Volume I, Application Document Ref. 6.1)**. This includes an assessment of the road traffic impacts resulting from the Proposed Development during construction and operation. The assessment considers local, regional, and national policy context, and considers the effect of construction and operational traffic including likely impacts on network and junction capacity, and potential to impact on journey times and highways safety.

2.12 Monitoring

Overview

- 2.12.1 Where relevant, Chapters 8 – 21 of the ES (**Volume I, Application Document Ref. 6.1**) outline monitoring measures for each technical assessment to ensure the ongoing efficacy of measures to mitigate significant effects resulting from the Proposed Development. These measures are secured, where necessary, by the **Draft DCO (Application Document Ref. 3.1)**.

2.13 Cumulative and combined effects

Introduction

- 2.13.1 Schedule 4 of the EIA Regulations (Regulation 14(2)) [Ref 1] requires an ES to include a description of cumulative effects. These effects are typically distinguished into two types:

- combined effects from the interrelationship between different environmental effects of the Proposed Development (intra-project); and
- cumulative effects from the interrelationship between different projects along with the Proposed Development (inter-project).

Combined effects

- 2.13.2 Combined effects, or intra-project effects, occur when a resource, receptor or group of receptors are potentially affected by one or more sources of direct environmental impact resulting from the same development. For example, a community may be affected by noise and dust effects resulting from the construction phase activities of a single development.
- 2.13.3 Where relevant, combined effects are considered within each environmental technical chapter and are collated in **Chapter 22: Cumulative and Combined Effects (ES Volume I, Application Document Ref. 6.1)**.

Cumulative effects

- 2.13.4 Cumulative effects, or inter-project effects, occur when a resource, receptor or group of receptors are potentially affected by more than one development at the same time. For example, the construction traffic effects of a development in isolation may not be significant, but when combined with the construction traffic effects of another development using the same geographical area at the same time may result in significant cumulative effects on the surrounding highway network.
- 2.13.5 **Chapter 22: Cumulative and Combined Effects (ES Volume I, Application Document Ref. 6.1)** provides the methodology and findings of the cumulative effects assessment.

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