

# **Net Zero Teesside Project**

Planning Inspectorate Reference: EN010103

Land at and in the vicinity of the former Redcar Steel Works site, Redcar and in Stocktonon-Tees, Teesside

**The Net Zero Teesside Order** 

**Document Reference: 1.2 – Application Guide** 

The Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(q)



Applicants: Net Zero Teesside Power Limited (NZT Power Ltd) & Net Zero North Sea Storage Limited (NZNS Storage Ltd)

Date: October 2021



## **DOCUMENT HISTORY**

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Owner			

## **GLOSSARY**

Abbreviation	Description
APFP Regulations	The Applications: Prescribed Forms and
	Procedure Regulations 2009.
Applicants	Net Zero Teesside Power Limited and Net Zero
	North Sea Storage Limited.
BEIS	Department of Business, Energy and Industrial
	Strategy - a department of the UK Government.
CCUS	Carbon Capture, Usage and Storage - is group of
	technologies designed to reduce the amount of
	carbon dioxide (CO <sub>2</sub> ) released into the
	atmosphere from coal and gas power stations as
	well as heavy industry including cement and steel
	production. Once captured, the CO <sub>2</sub> can be either
	re-used in various products, such as cement or
	plastics (usage), or stored in geological
	formations deep underground (storage).
CO <sub>2</sub>	Carbon Dioxide - an inorganic chemical
	compound with a wide range of commercial uses.
DCLG	Department for Communities and Local
	Government - a department of the UK
	Government.
DCO	A Development Consent Order made by the
	relevant Secretary of State pursuant to The
	Planning Act 2008 to authorise a Nationally
	Significant Infrastructure Project. A DCO can
	incorporate or remove the need for a range of
	consents which would otherwise be required for
	a development. A DCO can also include rights of
	compulsory acquisition.
EIA	Environmental Impact Assessment - a term used
	for the assessment of environmental
	consequences (positive or negative) of a plan,



	policy, program or project prior to the decision to move forward with the proposed action.
EIA Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
ES	Environmental Statement - a report in which the process and results of an Environment Impact Assessment are documented.
MLWS	Mean Low Water Springs - the height of the mean low water springs is the average height obtained by the two successive low waters during those periods of 24 hours when the range of the tide is at its greatest.
Mt	Million Tonnes - a metric unit of weight.
NSIP	Nationally Significant Infrastructure Project - defined by the Planning Act 2008 and covering projects relating to energy (including generating stations, electric lines and pipelines); transport (including trunk roads and motorways, airports, harbour facilities, railways and rail freight interchanges); water (dams and reservoirs, and the transfer of water resources); waste water treatment plants and hazardous waste facilities. These projects are only defined as nationally significant if they satisfy a statutory threshold in terms of their scale or effect.
NZNS Storage	Net Zero North Sea Storage Limited - one of the Applicants.
NZT	Net Zero Teesside - the name of the Proposed Development.
NZT Power	Net Zero Teesside Power Limited - one of the Applicants.
Order	The Net Zero Teesside Order - the name of the DCO for the Proposed Development.
PA 2008	The Planning Act 2008 - setting out the legislative regime for Nationally Significant Infrastructure Projects.
PINS	The Planning Inspectorate - an executive agency of the Department for Communities and Local Government responsible for administering DCO applications on behalf of the relevant Secretary of State.
Proposed Development	The Net Zero Teesside Project.
SoS	Secretary of State - the decision maker for DCO applications and head of a UK Government department.

NZT Power Ltd & NZNS Storage Ltd Application Guide Document Reference: 1.2



STDC	South Tees Development Corporation - a Mayoral
	Development Corporation responsible for
	approximately 400 hectares of land south of the
	River Tees in the borough of Redcar and
	Cleveland.



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### 1.0 INTRODUCTION

#### 1.1 Overview

- 1.1.1 This Application Guide (Document Ref. 1.2) has been prepared on behalf of Net Zero Teesside Power Limited and Net Zero North Sea Storage Limited (the 'Applicants'). It forms part of the application (the 'Application') for a Development Consent Order (a 'DCO'), that was submitted to the Secretary of State (the 'SoS') for Business, Energy and Industrial Strategy, under Section 37 of 'The Planning Act 2008' (the 'PA 2008') on 19 July 2021. The SoS accepted the Application for examination on 16 August 2021.
- 1.1.2 The Applicants are seeking development consent for the construction, operation and maintenance of the Net Zero Teesside Project ('NZT'), including associated development (together the 'Proposed Development') on land at and in the vicinity of the former Redcar Steel Works site, Redcar and in Stockton-on-Tees, on Teesside (the 'Site'). The former Steel Works site, along with other land required for the Proposed Development, lies within the boundary of the land controlled by the South Tees Development Corporation ('STDC'), which is now known as 'Teesworks'.
- 1.1.3 A DCO is required for the Proposed Development as it falls within the definition and thresholds for a 'Nationally Significant Infrastructure Project' (a 'NSIP') under Sections 14(1)(a) and 15 of the PA 2008, associated development under Section 115(1)(b) and by direction under Sections 35(1) and 35ZA of the same Act. The DCO, if made by the SoS, would be known as the 'Net Zero Teesside Order' (the 'Order').
- 1.1.4 The Proposed Development will be the UK's first commercial scale, full chain Carbon Capture, Usage, and Storage ('CCUS') project and will initially capture up to 4 million tonnes (Mt) of carbon dioxide (CO<sub>2</sub>) emissions per annum. It will comprise a number of elements, including a new gas-fired electricity generating station with post-combustion carbon capture plant; gas, water and electricity connections (for the generating station); a CO<sub>2</sub> pipeline network (a 'gathering network') for collecting CO<sub>2</sub> from a cluster of local industries on Teesside; a CO<sub>2</sub> compressor station (for the compression of the CO<sub>2</sub>) and a CO<sub>2</sub> export pipeline.
- 1.1.5 The CO<sub>2</sub> captured from the electricity generating station and local industries will be compressed and then transported (via the export pipeline) for secure storage within the Endurance saline aquifer located 145 kilometres offshore from Teesside under the North Sea. The transport pipeline has the capacity to carry up to 10Mt of CO<sub>2</sub> per annum. The Proposed Development will therefore make a significant contribution toward the UK reaching its greenhouse gas emissions target by 2050.

## 1.2 The Applicants

1.2.1 NZT encompasses proposals to both decarbonise electricity generation and a cluster of carbon intensive industries on Teesside. In line with the CCUS business models published by BEIS in December 2020, there will be separate entities who will be responsible for:



- electricity generation with post-combustion carbon capture (including the gas, water and electricity connections);
- CO<sub>2</sub> gathering (from industrial emitters), CO<sub>2</sub> compression and CO<sub>2</sub> transportation and storage; and
- industrial (including hydrogen production) carbon capture and connections to the  $CO_2$  gathering network.

## 1.2.2 The entities are set out in **Table 1.1** below:

Table 1.1 - NZT Entities

Onshore works scope	Partnership	NZT Entity	Within the scope of the DCO Application?
Electricity generating station with post- combustion carbon capture (including the gas, water and electricity connections)	bp*, Eni, Equinor and Total	Net Zero Teesside Power Limited	Yes
CO <sub>2</sub> gathering network, CO <sub>2</sub> compression and the onshore section of CO <sub>2</sub> export pipeline	bp*, Eni, Equinor, National Grid, Shell and Total	Net Zero North Sea Storage Limited	Yes
Industrial and hydrogen production carbon capture and connection to the CO <sub>2</sub> gathering network	Individual industrial emitters	N/A	No

<sup>\*</sup>Operator on behalf of the relevant Partnership



- 1.2.3 NZT is being promoted by Net Zero Teesside Power Limited ('NZT Power') and Net Zero North Sea Storage Limited ('NZNS Storage'). NZT Power and NZNS Storage (together the Applicants for the purposes of the DCO Application) have been incorporated on behalf of bp as operator of the two Partnerships.
- 1.2.4 The electricity generation with post-combustion carbon capture Partnership comprises bp, Eni, Equinor and Total, with bp leading as operator. NZT Power will be responsible for the Proposed Development in so far as it relates to the construction, operation and eventual decommissioning of the electricity generating station together with its carbon capture plant (both within the scope of the DCO Application).
- 1.2.5 The CO<sub>2</sub> gathering network, CO<sub>2</sub> compression and onshore section of CO<sub>2</sub> export pipeline Partnership comprises bp, Eni, Equinor, National Grid, Shell and Total, with bp leading as operator. NZNS Storage will be responsible for the Proposed Development in so far as it relates to the construction, operation and eventual decommissioning of the equipment required for the high-pressure compression of CO<sub>2</sub> from the electricity generating station and industrial emitters via the CO<sub>2</sub> gathering network and the onshore section of the CO<sub>2</sub> export pipeline (these are all within the scope of the DCO Application).
- 1.2.6 NZNS Storage will also be responsible for the offshore elements of NZT, comprising the offshore section of the CO<sub>2</sub> export pipeline (below Mean Low Water Springs ('MLWS')) to a suitable offshore geological CO<sub>2</sub> storage site under the North Sea, CO<sub>2</sub> injection wells and associated infrastructure. The offshore elements of NZT (with the exception of the gas and CO<sub>2</sub> pipeline crossings of the River Tees and the water outfall from the electricity generating station) do not form part of the DCO Application.

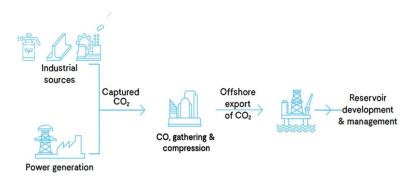
#### 1.3 What is Carbon Capture, Usage and Storage?

1.3.1 Carbon Capture, Usage and Storage ('CCUS') is a process that removes CO<sub>2</sub> emissions at source, for example emissions from a power station or chemical manufacturing installation, and then compresses the CO<sub>2</sub> so that it can be safely transported to secure underground storage sites. It is then injected into layer of solid rock filled with interconnected pores where the CO<sub>2</sub> becomes trapped and locked in place, preventing it from being released into the atmosphere. **Figure 1.1** below shows what is involved in the process.

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Figure 1.1 – CCUS Process



- 1.3.2 The technologies used in CCUS are proven and have been used safely across the world for many years. Storage sites are located several kilometres underground and are subject to stringent tests to ensure that they are geologically suitable. In the UK, it is expected that the storage sites will be located offshore, in areas such as the North Sea.
- 1.3.3 CCUS is one of a number of technologies that are crucial to reducing CO₂ emissions and combatting global warming. The UK Government has committed to achieving net zero in terms of greenhouse gas emissions by 2050. This is a legally binding target.

#### 1.4 The Site

- 1.4.1 The Site lies within the administrative boundaries of both Redcar and Cleveland Borough Council and Stockton-on-Tees Borough Council. It also partly lies within the boundary of the Teesworks area that is controlled by the STDC.
- 1.4.2 Most of the Site lies within the administrative area of Redcar and Cleveland Borough Council, although parts of Site (for the electricity generating station's gas supply connection to the National Transmission System for gas and the CO<sub>2</sub> gathering network) cross the River Tees into the administrative area of Stockton-on-Tees Borough Council. At this location the River Tees is tidal. In addition, there are elements of the Site which extend into South Gare, Coatham Sands and the North Sea. Those sections of the Site that are below MLWS are outside the jurisdiction of either local authority being part of the UK marine area.
- 1.4.3 The Site extends to approximately 462 hectares in area. Much of it comprises previously developed (including part of the former Redcar Steel Works Site) and existing industrial land, some of which was reclaimed from the Tees Estuary in the late C19th and during the C20th. The Site is relatively flat and low-lying and sits at a level of between sea level and approximately 9 metres Above Ordnance Datum. The area surrounding the Site is largely characterised by industrial and commercial uses, although there are open areas of land to the north in the form of South Gare and Coatham Sands, which are used for recreational purposes and that are of nature conservation importance.



1.4.4 A more detailed description of the Site and its surroundings is provided at Chapter 3 'Description of the Existing Environment' in the Environmental Statement ('ES') Volume I (Document Ref. 6.2).

## 1.5 The Proposed Development

- 1.5.1 The Proposed Development will work by capturing CO<sub>2</sub> from the electricity generating station in addition to a cluster of local industries on Teesside and transporting it via a CO<sub>2</sub> export pipeline to the Endurance saline aquifer under the North Sea. The Proposed Development will initially capture and transport up to 4Mt of CO<sub>2</sub> per annum, although the CO<sub>2</sub> export pipeline has the capacity to accommodate up to 10Mt of CO<sub>2</sub> per annum thereby allowing for future expansion.
- 1.5.2 The Proposed Development comprises the following elements:
  - Work Number ('Work No.') 1 a Combined Cycle Gas Turbine electricity generating station with an electrical output of up to 860 megawatts and postcombustion carbon capture plant (the 'Low Carbon Electricity Generating Station');
  - Work No. 2 natural gas supply connections and Above Ground Installations ('AGIs') (the 'Gas Connection');
  - Work No. 3 an electricity grid connection (the 'Electrical Connection');
  - Work No. 4 water supply connections (the 'Water Supply Connection Corridor');
  - Work No. 5 waste water disposal connections (the 'Water Discharge Connection Corridor');
  - Work No. 6 a CO<sub>2</sub> gathering network (including connections under the tidal River Tees) to collect and transport the captured CO<sub>2</sub> from industrial emitters (the industrial emitters using the gathering network will be responsible for consenting their own carbon capture plant and connections to the gathering network) (the 'CO<sub>2</sub> Gathering Network Corridor');
  - Work No. 7 a high-pressure CO<sub>2</sub> compressor station to receive and compress the captured CO<sub>2</sub> from the Low Carbon Electricity Generating Station and the CO<sub>2</sub> Gathering Network before it is transported offshore (the 'HP Compressor Station');
  - Work No. 8 a dense phase CO<sub>2</sub> export pipeline for the onward transport of the captured and compressed CO<sub>2</sub> to the Endurance saline aquifer under the North Sea (the 'CO<sub>2</sub> Export Pipeline');
  - Work No. 9 temporary construction and laydown areas, including contractor compounds, construction staff welfare and vehicle parking for use during the construction phase of the Proposed Development (the 'Laydown Areas'); and
  - Work No. 10 access and highway improvement works (the 'Access and Highway Works').



- 1.5.3 The electricity generating station, its post-combustion carbon capture plant and the CO<sub>2</sub> compressor station will be located on part of the STDC Teesworks area (on part of the former Redcar Steel Works Site). The CO<sub>2</sub> export pipeline will also start in this location before heading offshore. The generating station connections and the CO<sub>2</sub> gathering network will require corridors of land within both Redcar and Stockton-on-Tees, including crossings beneath the River Tees.
- 1.5.4 All of the above elements are included in the scope of the DCO Application, with the exception of the CO<sub>2</sub> export pipeline, where only the onshore section of pipeline above MLWS is included. The CO<sub>2</sub> export pipeline below MLWS and the CO<sub>2</sub> storage site under the North Sea (the Endurance saline aquifer) will be the subject of separate consent applications, including under the Petroleum Act 1998 and the Energy Act 2008. These applications will be supported by an Offshore Environmental Statement.
- 1.5.5 The ancillary development required in connection with and subsidiary to the above elements of the Proposed Development is detailed in Schedule 1 of the draft DCO (Document Ref. 2.1). A more detailed description of the Proposed Development is provided at Schedule 1 'Authorised Development' of the draft DCO and Chapter 4 'The Proposed Development' in ES Volume I (Document Ref. 6.2) and the areas within which each of the main elements of the Proposed Development are to be built are denoted by the coloured and hatched areas on the Works Plans (Document Ref. 4.4).

## 1.6 The Purpose and Structure of this Document

- 1.6.1 The purpose of this Application Guide is to list the documents (the 'Application Documents') that make up the Application submitted to the SoS. In addition, it sets out how the Application Documents submitted comply with relevant legislative and policy requirements and guidance.
- 1.6.2 The Application Guide will be updated by the Applicants, as required, during the examination of the Application and the documents that have been superseded will be clearly identified as such.
- 1.6.3 The Application Documents are listed in Section 2 (Table 2.1) of this document.



### 2.0 APPLICATION DOCUMENTS

- 2.1.1 The Application Documents have been grouped into appropriate categories and each has been given its own document reference in **Table 2.1** on the following pages.
- 2.1.2 In addition to listing the Application Documents submitted, Table 2.1 also identifies where these have been provided to comply with relevant legislative and policy requirements and guidance. The legislative requirements for DCO applications are principally contained in the PA 2008, The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (the 'APFP Regulations') and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations').
- 2.1.3 Regulation 5 in the APFP Regulations lists the documents that all DCO applications must include. Regulation 5 includes a category (Reg. 5(2)(q)) described as "any other documents considered necessary to support the application". Similarly, Regulation 5 (Reg. 5(2)(o)) also allows applicants to submit other plans, drawings and sections which are considered necessary to describe the proposed development. The documents and plans and drawings that have been provided by the Applicants under these categories of Regulation 5 are therefore not statutorily required but are those which it considers are necessary to explain and support the Application.
- 2.1.4 Regulation 6 sets out a number of documents that particular types of DCO application must include. Those relating to power stations and pipelines are relevant to the Proposed Development and include an Electricity Grid Connection Statement (Document Ref. 5.5) and a Gas Connection and Pipelines Statement (Document Ref. 5.6).
- 2.1.5 The Application submitted for the Proposed Development is considered to comply with the statutory requirements of the PA 2008, the APFP Regulations and the EIA Regulations. Furthermore, the Application complies with the policy requirements under relevant National Policy Statements and applicable SoS and PINS guidance, including, in particular, PINS Advice Note 6 'Preparation and submission of application documents' (December 2020).

Table 2.1 – Application Documents (and updates)

Application Document Reference	Application Document Name	Statutory/other requirement/comment	Date/Rev. No.
Category 1.0	Application Form and related do	ocuments	
1.1	Application Cover Letter	APFP Reg. 5(2)(q)	July 2021
1.2	Application Guide (this document)	APFP Reg. 5(2)(q)	October 2021 – Rev. 2.0
1.3	Application Form	Section 37(3)(b) and APFP Reg. 5(1)	July 2021

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Application	Application Document Name	Statutory/other	Date/Rev. No.
Document Reference		requirement/comment	
1.4	Notices for Non-Statutory & Statutory Publicity	APFP Reg. 5(2)(q), PINS Advice Note 6 and Application Form (Boxes 8(b) and 14(c))	May 2021
Category 2.0	Draft Development Consent Ore	der	
2.1	Draft Development Consent Order	APFP Reg. 5(2)(b)	October 2021 – Rev. 2.0
2.2	Explanatory Memorandum	APFP Reg. 5(2)(c)	October 2021 – Rev. 2.0
Category 3.0	Land Information / Compulsory	Acquisition Information	
3.1	Book of Reference (Parts 1-5)	APFP Reg.5(2)(d) & Reg. 7	July 2021
3.2	Statement of Reasons	APFP Reg. 5(2)(h) & Reg. 5(2)(n)	July 2021
3.3	Funding Statement	APFP Reg. 5(2)(h)	July 2021
Category 4.0	Plans, Drawings and Sections		May 2021 unless otherwise stated
4.1	Location Plan (Key Plan and Sheets 1-8)	APFP Reg.5(2)(o)	
4.2	Land Plans (Key Plan and Sheets 1-14)	APFP Reg.5(2)(i)	October 2021 – Rev. 2.0
4.3	Crown Land Plans (Key Plan and Sheets 1-14)	APFP Reg. 5(2)(n)	October 2021 – Rev. 2.0
4.4	Works Plans (Key Plans 1-13 and Sheets 1-37)	APFP Reg. 5(2)(j)	October 2021 – Rev. 2.0
4.5	Access and Rights of Way Plans (Key Plan and Sheets 1-7)	APFP Reg. 5(2)(k)	October 2021- Rev. 2.0
4.6	Indicative Power Capture and Compression (PCC) Facility Plans (Sheets 1-4 including Key Plan)	APFP Reg. 5(2)(o)	
4.7.1 to 4.7.11	Indicative Gas Connection and Above Ground Installations Plans (Sheets 1 -11 including Key Plan)	APFP Reg. 5(2)(o)	4.7.1 (Sheet 1 – Key Plan) October 2021 – Rev. 2.0



Application Document Reference	Application Document Name	Statutory/other requirement/comment	Date/Rev. No.
			4.7.8 (Sheet 8) October 2021 – Rev. 2.0
			4.7.9 (Sheet 9) October 2021 – Rev. 2.0
			4.7.10 (Sheet 10) – October 2021 – Rev. 2.0
4.8.1 to 4.8.7	Indicative Electrical Connection Plans (Sheets 1-7 including Key Plan)	APFP Reg. 5(2)(o)	4.8.2 to 4.8.7 – July 2021 4.8.1 (Sheet 1 – Key Plan)
			October 2021 – Rev. 2.0
4.9	Indicative Water Connection Plan	APFP Reg. 5(2)(o)	July 2021
4.10	Indicative HP Compressor Plans (Sheets 1-4 including Key Plan)	APFP Reg. 5(2)(o)	July 2021
4.11	Indicative CO <sub>2</sub> Gathering Network Plans (Sheets 1-12 including Key Plan)	APFP Reg. 5(2)(o)	July 2021
4.12	Indicative CO <sub>2</sub> Export Pipeline Plan	APFP Reg. 5(2)(o)	July 2021
4.13	Indicative Surface Water Drainage Plan	APFP Reg. 5(2)(o)	July 2021
4.14	Deemed Marine Licence Coordinates Plans (Key Plan and Sheets 1-3)	APFP Reg. 5(2)(o)	
4.15	Indicative Landscape and Biodiversity Plan	APFP Reg. 5(2)(o)	



Application	Application Document Name	Statutory/other	Date/Rev. No.
Document Reference		requirement/comment	
Category 5.0	Reports and Statements		May 2021 unless otherwise stated
5.1	Consultation Report	Section 37(3)(c) & 37(7) PA 2008 and DCLG PA 2008 Guidance on the pre-application process (paras 78-84)	
5.2	Project Need Statement	APFP Reg. 5(2)(q) and PINS Advice Note 6	May 2021 - Resubmitted in September 2021 due to file corruption but no changes made
5.3	Planning Statement	APFP Reg. 5(2)(q) and PINS Advice Note 6	July 2021
5.4	Design and Access Statement	APFP Reg. 5(2)(q), Overarching National Policy Statement ('NPS') for Energy (EN-1) – 4.5 and PINS Advice Note 6	July 2021
5.5	Electricity Grid Connection Statement	APFP Reg. 5(2)(p) & Reg. 6(1)(a)(i)	July 2021
5.6	Gas Connection and Pipelines Statement	APFP Reg. 5(2)(p), Reg. 6(1)(a)(ii) & Reg. 6(4)	
5.7	Carbon Capture Readiness Assessment	APFP Reg. 5(2)(q) and NPS EN-1 – 4.7	
5.8	Combined Heat and Power Assessment	APFP Reg. 5(2)(q), EN-1 – 4.6	October 2021 – Rev. 2.0
5.9	Statutory Nuisance Statement	APFP Reg. 5(2)(f)	
5.10	Other Consents and Licences	APFP Reg. 5(2)(q) and PINS Advice Note 6	
5.11	Indicative Lighting Strategy	APFP Reg. 5(2)(q)	October 2021 – Rev. 2.0
5.12	Indicative Landscape and Biodiversity Strategy	APFP Reg. 5(2)(q) and EN-1 – 5.9	May 2021
5.13	Habitats Regulations Assessment	APFP Reg 5(2)(g)	October 2021 – Rev. 2.0



Application	Application Document Name	Statutory/other	Date/Rev. No.
Document		requirement/comment	
Reference			
Category 6.0	Environmental Impact Assessment Information		May 2021 Unless otherwise stated
6.1	Non-Technical Summary	APFP Reg. 5(2)(a) and EIA Reg. 14	July 2021
6.2	Environmental Statement Volume I – Main Text	APFP Reg. 5(2)(a) and EIA Reg. 14	
6.2.1	Chapter 1 Introduction	APFP Reg. 5(2)(a) and EIA Reg. 14	
6.2.2	Chapter 2 Assessment Methodology	APFP Reg. 5(2)(a) and EIA Reg. 14	
6.2.3	Chapter 3 Description of the Existing Area	APFP Reg. 5(2)(a) and EIA Reg. 14	
6.2.4	Chapter 4 Proposed Development	APFP Reg. 5(2)(a) and EIA Reg. 14	October 2021 – Rev. 2.0
6.2.5	Chapter 5 Construction Programme and Management	APFP Reg. 5(2)(a) and EIA Reg. 14	July 2021
6.2.6	Chapter 6 Alternatives and Design Evolution	APFP Reg. 5(2)(a) and EIA Reg. 14	
6.2.7	Chapter 7 Legislative Context & Planning Policy	APFP Reg. 5(2)(a) and EIA Reg. 14	
6.2.8	Chapter 8 Air Quality	APFP Reg. 5(2)(a) and EIA Reg. 14	
6.2.9	Chapter 9 Surface Water, Flood Risk and Water Resources	APFP Reg. 5(2)(a) & (e) and EIA Reg. 14	
6.2.10	Chapter 10 Geology, Hydrogeology and Contaminated Land	APFP Reg. 5(2)(a) & (I) and EIA Reg. 14	
6.2.11	Chapter 11 Noise and Vibration	APFP Reg. 5(2)(a) and EIA Reg. 14	July 2011
6.2.12	Chapter 12 Terrestrial Ecology and Nature Conservation	APFP Reg. 5(2)(a) & (I) and EIA Reg. 14	
6.2.13	Chapter 13 Aquatic Ecology	APFP Reg. 5(2)(a) & (I) and EIA Reg. 14	
6.2.14	Chapter 14 Marine Ecology and Nature Conservation	APFP Reg. 5(2)(a) & (I) and EIA Reg. 14	
6.2.15	Chapter 15 Ornithology	APFP Reg. 5(2)(a) & (I) and EIA Reg. 14	
6.2.16	Chapter 16 Traffic and Transport	APFP Reg. 5(2)(a) and EIA Reg. 14	July 2021
6.2.17	Chapter 17 Landscape and Visual Amenity	APFP Reg. 5(2)(a) & (m) and EIA Reg. 14	July 2021
6.2.18	Chapter 18 Cultural Heritage	APFP Reg. 5(2)(a) & (m) and EIA Reg. 14	



Application	Application Document Name	Statutory/other	Date/Rev. No.
Document		requirement/comment	
Reference		, , , , , , , , , , , , , , , , , , , ,	
6.2.19	Chapter 19 Marine Heritage	APFP Reg. 5(2)(a) & (m)	
		and EIA Reg. 14	
6.2.20	Chapter 20 Socio-economics &	APFP Reg. 5(2)(a) and	
	Tourism	EIA Reg. 14	
6.2.21	Chapter 21 Climate Change	APFP Reg. 5(2)(a) and	July 2021
		EIA Reg. 14	
6.2.22	Chapter 22 Major Accidents &	APFP Reg. 5(2)(a) and	
	Disasters	EIA Reg. 14	
6.2.23	Chapter 23 Population &	APFP Reg. 5(2)(a) and	
	Human Health	EIA Reg. 14	
6.2.24	Chapter 24 Cumulative and	APFP Reg. 5(2)(a) and	
	Combined Effects	EIA Reg. 14	
6.2.25	Chapter 25 Summary of	APFP Reg. 5(2)(a) and	
	Significant Effects	EIA Reg. 14	
6.3	ES Volume II (Figures)	All APFP Reg. 5(2)(a) &	
		(o) and EIA Reg. 14	
	5: 44 6:: 1 1: 5!	unless stated	
6.3.1	Figure 1.1: Site Location Plan	-	
6.3.2	Figure 3.1: Site Boundary Plan	-	
6.3.3	Figure 3.2: Development Areas	-	July 2021
6.2.4	Plan		
6.3.4	Figure 3.3: Residential	-	
6.2.5	Receptors within 2km	ADED Dogs (2)(1)	Octobor 2021
6.3.5	Figure 3.4: Environmental Receptors within 2km	APFP Regs. 5(2)(I)	October 2021 – Rev. 2.0
6.3.6	Figure 4.1: Indicative PCC Site	-	Rev. 2.0
0.3.0	Layout Plan	_	
6.3.7	Figure 4.2: Indicative	APFP Regs. 5(2)(I)	
0.5.7	Landscaping and Biodiversity	AFFF Regs. 3(2)(1)	
	Strategy		
6.3.8	Figure 5.1: Access and	_	
	Laydown		
6.3.9	Figure 5.2: Indicative Pipeline	-	
	Routings		
6.3.10	Figure 5.3: Indicative Electrical	-	July 2021
	Connection Routings		
6.3.11	Figure 6.1: Scheme and	-	
	Boundary Changes since the		
	PEI Report		
6.3.12	Figure 7.1: Local Plan Areas	-	
6.3.13	Figure 8.1: Air Quality Study	-	
	Area - Human Health		
	Receptors and Monitoring		
6.3.14	Figure 8.2: Air Quality Study	-	
	Area - Ecological Receptors		



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6.3.15	Figure 8.3: Air Quality Study	-	
	Area - Construction		
6.3.16	Figure 8.4: Air Quality - Model	-	
6247	Visualisation		
6.3.17	Figure 8.5: Annual Mean NO2 Process Contribution	-	
6.3.18	Figure 8.6: 1 hour Mean NO2	_	
0.3.16	Process Contribution	-	
6.3.19	Figure 8.7 Annual Mean NOx	-	
	Process Contribution		
6.3.20	Figure 8.8 Maximum 24 hour	-	
	Mean NOx Process		
	Contribution		
6.3.21	Figure 8.9: Nutrient Nitrogen	-	
	Deposition		
6.3.22	Figure 9.1: Surface Water	APFP Regs. 5(2)(I)	
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6.3.23	Figure 9.2: Groundwater	-	
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6.3.24	Figure 9.3: Ecological	APFP Regs. 5(2)(I)	October 2021 – Rev. 2.0
6.3.25	Designations Figure 9.4: Environment	APFP Reg. 5(2)(e)	Rev. 2.0
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6.3.26	Figure 9.5: Flood Risk from	APFP Reg. 5(2)(e)	
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	Figure 10.1: Artificial Geology		
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	Geology		
6.3.29	Figure 10.3: Bedrock Geology	-	
6.3.30	Figure 10.3. Bedrock Geology		
0.3.30	Figure 10.4: BGS Boreholes		
6.3.31	Figure 10.5: Quarrying and	-	
	Landfill		
6.3.32	Figure 10.6: Waste	-	
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6.3.33	Figure 10.7: Infilled Land –	-	
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6.3.34	Figure 10.8: Infilled Land –	-	
6 2 25	Water	-	
6.3.35	Figure 10.9: Hazardous	-	
6.3.36	Figure 10.10: Contaminated	-	
	Land - Point		



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6.3.37	Figure 10.11: Contaminated Land – Line	-	
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0.5.56	Land – Polygon	-	
6.3.39	Figure 10 13: Historia Tanka	-	
6.3.40	Figure 10.13: Historic Tanks Figure 10.14: Sensitive Land	_	
0.5.40	Use		
6.3.41	5: 40.45 5: 1	-	
6 2 42	Figure 10.15: Discharge	ADED Dog (72)/o)	
6.3.42	Figure 10.16: Flood Risk	APFP Reg. 5(2)(e)	
6.3.43	Figure 10.17: Bodyook Aguifor	-	
6.3.44	Figure 10.17: Bedrock Aquifer Figure 10.18: Superficial		
0.3.44	Aquifer	-	
6.3.45	Figure 10.19: BGS Flood	APFP Reg. 5(2)(e)	
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6.3.46	Figure 10.20: Risk of Flooding	APFP Reg. 5(2)(e)	
6.3.47	from Rivers and Seas Figure 10.21: Stockton-on-Tees		
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6.3.48	Figure 10.22: Redcar and	-	
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6.3.49	Figure 10.23: Historical	APFP Reg. 5(2)(m)	
	Features (Sheets 1 to 3)		
6.3.50	Figure 10.24: Agricultural Land Classification (Sheets 1 & 2)	-	
6.3.51	Figure 10.25: BGS Buried	-	
	Valleys		
6.3.52	Figure 11.1: Noise Sensitive	-	October 2021 –
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6.3.53	Figure 11.2: PCC Site Piling Construction Phase	-	October 2021 - Re. 2.0
6.3.54	Figure 11.3: CO <sub>2</sub> Gathering	-	October 2021 –
	Network Construction		Rev. 2.0
6.3.55	Figure 11.4a: CO <sub>2</sub> Export	-	October 2021 –
	Pipeline Construction		Rev. 2.0
6.3.56	Figure 11.4b: CO <sub>2</sub> Export	-	October 2021 –
	Pipeline Construction (with		Rev. 2.0
6.3.57	screening) Figure 11.5: PCC Site	_	October 2021 –
0.3.37	Operational Noise Levels	_	Rev. 2.0
6.3.58	Figure 13.1: Surface	APFP Reg. 5(2)(I)	1.01. 2.0
	Waterbodies within 200m	(-)(-)	



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6.3.59	Figure 14.1: Benthic Survey	APFP Reg. 5(2)(I)	
	Study Area and Sampling		
	Locations		
6.3.60		-	
	Figure 15.1: Study Areas		
6.3.61	5 15.2.6	-	
6.2.62	Figure 15.2: Survey Areas	ADED D (2)///	O -t - b 2024
6.3.62	Figure 15 2. Designated Sites	APFP Reg. 5(2)(I)	October 2021 –
6.2.62	Figure 15.3: Designated Sites	ADED D (2)///	Rev. 2.0
6.3.63	Figure 15.4: Non-Statutory	APFP Reg. 5(2)(I)	
6.2.64	Designated Sites		
6.3.64	Figure 16.1: Traffic Study Area	-	
6.3.65	Figure 16.2: HGV Routes to and	_	
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6.3.66	Figure 16.3: Traffic Count	_	
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6.3.67	Escations	APFP Reg. 5(2)(I)	
0.3.07	Figure 17.1: Landscape Context	/	
6.3.68	Figure 17.2: Public Rights of	-	
	Way within 2km		
6.3.69	Figure 17.3: Landscape	APFP Reg. 5(2)(I)	
	Character Plan		
6.3.70	Figure 17.4: Zone of	-	
	Theoretical Visibility and		
	Potential Viewpoint Location		
6.3.71		-	
	Figure 17.5: Topography		
6.3.72	Figure 17.6: Zone of	-	
	Theoretical Visibility and		
	Representative Viewpoint		
	Locations		
6.3.73	Figure 17.7 Viewpoint 1 -	-	
	Albion Terrace Hartlepool		
	(Winter)		
6.3.74	Figure 17.7a: Viewpoint 1 -	-	May 2021 –
	Albion Terrace Hartlepool		Re-submitted
	(Summer)		in September
			2021 due to
			file corruption
			but no changes made
6 2 75	Figure 17 7h: Viewpoint 1		IIIdue
6.3.75	Figure 17.7b: Viewpoint 1 - Albion Terrace Hartlepool	-	
	(Original Photography)		
6.3.76	Figure 17.8: Viewpoint 2 - The		
0.3.70	Cliff Seaton Carew (Winter)	_	
	Cilli Seaton Calew (Willter)		



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6.3.77	Figure 17.8a: Viewpoint 2 - The	-	
0.3.77	Cliff Seaton Carew (Summer)		
6.3.78	Figure 17.8b: Viewpoint 2 - The	_	
0.3.70	Cliff Seaton Carew (Original		
	Photography)		
6.3.79	Figure 17.9: Viewpoint 3 -	_	
0.3.73	Teesside National Nature		
	Reserve England Coastal Path		
	(Winter)		
6.3.80	Figure 17.9a: Viewpoint 3 -	-	
	Teesside National Nature		
	Reserve England Coastal Path		
	(Summer)		
6.3.81	Figure 17.9b: Viewpoint 3 -	-	
	Teesside National Nature		
	Reserve England Coastal Path		
	(Original Photography)		
6.3.82	Figure 17.10: Viewpoint 4 -	-	
	North Gare Sands (Winter)		
6.3.83	Figure 17.10a: Viewpoint 4 -	-	
	North Gare Sands (Summer)		
6.3.84	Figure 17.10b: Viewpoint 4 -	-	
	North Gare Sands (Original		
	Photography)		
6.3.85	Figure 17.11: Viewpoint 5 -	-	
	South Gare Breakwater		
	(Winter)		
6.3.86	Figure 17.11a: Viewpoint 5 -	-	
	South Gare Breakwater		
	(Summer)		
6.3.87	Figure 17.11b: Viewpoint 5 -	-	
	South Gare Breakwater		
	(Original Photography)		
6.3.88	Figure 17.12: Viewpoint 6 -	-	
	Cowpen Bewley Woodland		
6 0 00	Country Park (Winter)		
6.3.89	Figure 17.12a: Viewpoint 6 -	-	
	Cowpen Bewley Woodland		
C 2.00	Country Park (Summer)		
6.3.90	Figure 17.12b: Viewpoint 6 -	-	
	Country Bark (Original		
	Country Park (Original		
6 2 01	Photography)		
6.3.91	Figure 17.13: Viewpoint 7 - England Coast Path Warrenby	-	
	(Winter)		
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6.3.92	Figure 17.13a: Viewpoint 7 -	-	
	England Coast Path Warrenby		
	(Summer)		
6.3.93	Figure 17.13b: Viewpoint 7 -	-	
	England Coast Path Warrenby		
	(Original Photography)		
6.3.94	Figure 17.14: Viewpoint 8 -	-	
	Redcar Seafront (Winter)		
6.3.95	Figure 17.14a: Viewpoint 8 -	-	
	Redcar Seafront (Summer)		
6.3.96	Figure 17.14b: Viewpoint 8 -	-	
	Redcar Seafront (Original		
c o o=	Photography)		
6.3.97	Figure 17.15: Viewpoint 9 -	-	
	Coatham Marsh Nature		
C 2 00	Reserve (Winter)		
6.3.98	Figure 17.15a: Viewpoint 9 - Coatham Marsh Nature	-	
	Reserve (Summer)		
6.3.99	Figure 17.15b: Viewpoint 9 -	-	
0.3.33	Coatham Marsh Nature	-	
	Reserve (Original Photography)		
6.3.100	Figure 17.16: Viewpoint 10 -	_	
0.5.100	Eston Nab (Winter)		
6.3.101	Figure 17.16a: Viewpoint 10 -	-	
	Eston Nab (Summer)		
6.3.102	Figure 17.16b: Viewpoint 10 -	-	
	Eston Nab (Original		
	Photography)		
6.3.103	Figure 17.17: Viewpoint 11 -	-	
	Longbeck Lane (Winter)		
6.3.104	Figure 17.17a: Viewpoint 11 -	-	
	Longbeck Lane (Summer)		
6.3.105	Figure 17.17b: Viewpoint 11 -	-	
	Longbeck Lane (Original		
	Photography)		
6.3.106	Figure 17.18: Viewpoint 12 -	-	
	Carpark Off A1085 Coast Road		
	Marske by the Sea (Winter)		
6.3.107	Figure 17.18a: Viewpoint 12 -	-	
	Carpark Off A1085 Coast Road		
	Marske by the Sea (Summer)		
6.3.108	Figure 17.18b: Viewpoint 12 -	-	
	Carpark Off A1085 Coast Road		
	Marske by the Sea (Original		
	Photography)		



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6.3.109	Figure 17.19: Viewpoint 2 The	-	
	Cliff Seaton Carew - Existing		
6.3.110	Figure 17.20: Viewpoint 2 The	-	
	Cliff Seaton Carew - Massing		
6.3.111	Figure 17.21: Viewpoint 2 The	-	
	Cliff Seaton Carew -		
	Photomontage		
6.3.112	Figure 17.22: Viewpoint 4	-	
	North Gare Sands - Existing		
6.3.113	Figure 17.23: Viewpoint 4	-	
	North Gare Sands - Massing		
6.3.114	Figure 17.24: Viewpoint 4	-	
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	Photomontage		
6.3.115	Figure 17.25: Viewpoint 7	-	
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	Existing		
6.3.116	Figure 17.26: Viewpoint 7	-	
	England Coast Path Warrenby -		
	Massing		
6.3.117	Figure 17.27: Viewpoint 7	-	
	England Coast Path Warrenby -		
	Photomontage		
6.3.118	Figure 17.28: Viewpoint 8	-	
	Redcar Seafront - Existing		
6.3.119	Figure 17.29: Viewpoint 8	-	
	Redcar Seafront - Massing		
6.3.120	Figure 17.30: Viewpoint 8	-	
	Redcar Seafront -		
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6.3.121	Figure 18.1: Designated	APFP Reg. 5(2)(m)	
	heritage assets in the 5 km		
	Study Area		
6.3.122	Figure 18.2: Non - designated	APFP Reg. 5(2)(m)	
	heritage assets in 1 km Study		
	Area		
6.3.123	Figure 18.3: Historic Landscape	APFP Reg. 5(2)(m)	
	Character		
6.3.124	Figure 19.1: Marine Heritage	APFP Reg. 5(2)(m)	
	Assets in 1 km Study Area		
6.3.125	Figure 22.1: HSE Consultation	-	
	Zones		
6.3.126	Figure 24.1: Zones of Influence	-	
	for Cumulative Effects		
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6.3.127	Figure 24.2: Long List of Other	-	
	Developments		
6.3.128	Figure 24.3: Short List of Other	-	
	Developments		
6.4	ES Vol III (Appendices)	All APFP Reg. 5(2)(a) & (o) and EIA Reg. 14 unless stated	
6.4.1	Appendix 1A: EIA Scoping Report	-	
6.4.2	Appendix 1B: EIA Scoping Opinion	-	
6.4.3	Appendix 1C: Statement of Competence	-	
6.4.4	Appendix 2A: Transboundary Screening	-	
6.4.5	Appendix 5A Framework Construction Environmental Management Plan	-	July 2021
6.4.6	Appendix 8A: Air Quality -		
0.4.0	Construction Assessment	-	
6.4.7	Appendix 8B: Air Quality -	-	
0.4.7	Operational Assessment		
6.4.8	Appendix 8C: Air Quality -	_	
01.113	Amine Degradation		
	Assessment		
6.4.9	Appendix 9A: Flood Risk	APFP Reg. 5(2)(e)	July 2021
	Assessment		
6.4.10	Appendix 9B: Background Water Quality Data Tables and Water Resources Data	-	
6.4.11	Appendix 9C: Water Framework Directive Assessment	-	
6.4.12	Appendix 10A: Preliminary Sources Study Report	-	
6.4.13	Appendix 10B: Contaminated Land: Conceptual Site Model	-	
6.4.14	Appendix 10C: Contaminated Land Environmental Risk Assessment	-	
6.4.15	Appendix 10D: Geotechnical Risk Register	-	
6.4.16	Appendix 11A: Construction Noise Assessment Methodology	-	



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6.4.17	Appendix 11B: Operational	-	
	Noise Information		
6.4.18	Appendix 12A: Legislation and	-	
	Planning Policy Relevant to		
	Ecology		
6.4.19	Appendix 12B: Ecological		
	Impact Assessment Methods		
6.4.20	Appendix 12C: Preliminary	APFP Reg. 5(2)(I)	Part 3
	Ecological Appraisal Report		(updated
			figures)
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C 4 24	Annual div 12D. Bot Common	ADED D	Rev. 2.0
6.4.21	Appendix 12D: Bat Survey Report	APFP Reg. 5(2)(I)	
6.4.22	Appendix 12E: Reptile Survey	APFP Reg. 5(2)(I)	
0.4.22	Report Reputile Survey	AFFF Neg. 3(2)(1)	
6.4.23	Appendix 12F: Invertebrate	APFP Regs. 5(2)(I)	
0.4.23	Survey Report	AFFF Regs. 3(2)(1)	
6.4.24	Appendix 12G: Water Vole and	APFP Reg. 5(2)(I)	
0.4.24	Otter Survey Report	AFTF Reg. 3(2)(1)	
6.4.25	Appendix 12H: Supplementary	APFP Reg. 5(2)(I)	
0.4.23	Habitat Information Report:	ATT NCG. 3(2)(1)	
	Coatham Sands (Teesmouth		
	and Cleveland Coast SSSI)		
6.4.26	Appendix 12I: Terrestrial	APFP Reg. 5(2)(I)	
	Invertebrate Survey Coatham		
	Dunes		
6.4.27	Appendix 12J: GCN Survey	APFP Reg. 5(2)(I)	
	Report		
6.4.28	Appendix 13A: Aquatic Ecology	APFP Regs. 5(2)(I)	
	Supplementary Desk Study and		
	Field Survey Report		
6.4.29	Appendix 14A: Intertidal	APFP Regs. 5(2)(I)	
	Benthic Ecology Survey Report		
6.4.30	Appendix 14B: Fisheries and	APFP Regs. 5(2)(I)	
	Fish Survey Report		
6.4.31	Appendix 14C: Marine	APFP Regs. 5(2)(I)	
6.4.22	Mammal Survey Report	ADED Dec = 5/2\/!\	
6.4.32	Appendix 14D: Subtidal	APFP Regs. 5(2)(I)	
6.4.22	Benthic Ecology		
6.4.33	Appendix 14E: Coastal	-	
6.4.24	Modelling Report	ADED Dogs (12)///	Dowt 2
6.4.34	Appendix 15A: Baseline	APFP Regs. 5(2)(I)	Part 2
	Ornithology Report		(updated figures)
			i igures)



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6.4.35	Appendix 15B: Confidential Baseline Ornithology Report	APFP Regs. 5(2)(I)	
6.4.36	Appendix 16A: Transport Assessment	-	July 2021
6.4.37	Appendix 16B: Framework Construction Worker Travel Plan	-	July 2021
6.4.38	Appendix 16C: Framework Construction Traffic Management Plan	-	July 2021
6.4.39	Appendix 17A: Landscape Character	APFP Reg. 5(2)(I)	
6.4.40	Appendix 17B: Landscape and Visual Methodology	-	
6.4.41	Appendix 17C: Potential Viewpoints	-	
6.4.42	Appendix 18A: Cultural Heritage Baseline Report	APFP Reg. 5(2)(m)	
6.4.43	Appendix 18B: Cultural Heritage Gazetteer	APFP Reg. 5(2)(m)	
6.4.44	Appendix 20A: Economic Benefits Report	-	
6.4.45	Appendix 20B: Navigational Risk Assessment	-	July 2021
6.4.46	Appendix 24A: Planned Development and Development Allocations	-	
6.4.47	Appendix 24B: Assessment of Cumulative Effects Stages 1-3	-	
6.4.48	Appendix 24C: Statement of Combined Effects	-	October 2021 – Rev. 2.0
6.4.49	Appendix 25A: Commitments Register	-	October 2021 – Rev. 2.0