# LIGHTHOUSE GREEN FUELS PROJECT

# Preliminary Environmental Information Report

# **Non–Technical Summary**

The Inspectorate Reference: EN010150

May 2024 Volume 4

# TABLE OF CONTENTS

1.	INTRODUCTION1		
	1.1.	Overview of the Proposed Scheme	1
	1.2.	Meeting the Net Zero Challenge	1
	1.3.	The Consenting Process	1
	1.4.	Consultation	2
2.	THE PROPOSED SCHEME		
	2.1.	About the Applicant	3
	2.2.	The Existing Environment	3
	2.3.	The Proposed Scheme	5
	2.4.	Construction of the Proposed Scheme	8
3.	APPF	ROACH TO ENVIRONMENTAL IMPACT ASSESSMENT	10
	3.1.	Overview	10
	3.2.	Purpose of the PEIR	10
	3.3.	Approach to the PEIR	10
	3.4.	Stages of the EIA	11
4.	ENVIRONMENTAL EFFECTS		12
	4.1.	Air Quality	12
	4.2.	Noise and Vibration	13
	4.3.	Terrestrial Ecology	14
	4.4.	Freshwater and Marine Ecology	16
	4.5.	Water Environment and Flood Risk	17
	4.6.	Landscape and Visual	18
	4.7.	Greenhouse Gases	19
	4.8.	Climate Change Resilience	20
	4.9.	Materials and Waste	21
	4.10.	Socio-economics	22
	4.11.	Population and Human Health	22
	4.12.	Traffic and Transport	23
	4.13.	Major Accidents and Disasters	24
	4.14.	Marine Navigation	25
	4.15.	Cumulative Effects	26
5.	CON	SULTATION AND NEXT STEPS	27
LIG	нтнои	ISE GREEN FUELS PROJECT	

5.1.	Consultation	.27
5.2.	Next Steps	.28

### **FIGURES**

Figure 1 Site Location Plan

- Figure 2 Key Environmental Constraints
- Figure 3 Proposed Scheme Layout

#### Figure 4 Sustainable Aviation Fuel Process

### 1. INTRODUCTION

### 1.1. OVERVIEW OF THE PROPOSED SCHEME

- 1.1.1. Lighthouse Green Fuels Limited (the Applicant) propose to develop a Sustainable Aviation Fuel (SAF) facility near Billingham, Stockton-on-Tees, UK (herein referred to as the 'Proposed Scheme'), which will treat waste and/or waste biomass and/or biomass residues, and convert it to various energy related products including SAF and naphtha.
- 1.1.2. The Proposed Scheme will be one of the largest of its kind in Europe, converting over 1 million tonnes of waste and/or biomass into over 175 million litres of advanced SAF and approximately 30 million litres of naphtha per annum. This is equivalent to the fuel required for over approximately 25,000 short-haul flights to Europe or over 2,500 long-haul flights, saving around 350,000 tonnes of carbon dioxide (CO<sub>2</sub>) emissions annually, compared with using conventional aviation fuel.

#### 1.2. MEETING THE NET ZERO CHALLENGE

- 1.2.1. The UK government has a legally binding target to bring all greenhouse gas emissions to net zero by 2050. Decarbonisation of the aviation sector is an important element in achieving the UK's legally binding commitment to reach this target.
- 1.2.2. In 2022, the Government published its Jet Zero Strategy, to set out how it intends to accelerate the transition away from fossil fuels. SAF, is considered to be the only viable solution. The Government has identified a need to significantly increase production of SAF within the UK in order to meet its net zero targets and requires SAF to make up at least 10% of the aviation fuel mix by 2030. To secure this, the Strategy pledges to start constructing at least five new SAF production facilities in the UK. In April 2024, the Government confirmed that the 'SAF Mandate' would be legislated and operational from January 2025 onwards.
- 1.2.3. Teesside, with its heritage of industrial and technological excellence, is ideally placed within the UK for the establishment of a large-scale SAF production facility. There are extensive areas of abandoned or underutilised land available for development within well-established industrial areas, with good access to rail and marine transport infrastructure, utility connections and existing bulk fuels tank storage.

### 1.3. THE CONSENTING PROCESS

1.3.1. The Secretary of State has determined that the Proposed Scheme should be treated as a Nationally Significant Infrastructure Project. Due to the nature of the Proposed Scheme, the Applicant will need to carry out an Environmental Impact Assessment (EIA) in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, (the EIA Regulations). The purpose of the EIA will be to assess the impacts of the Proposed Scheme on the surrounding environment. The EIA will be submitted as part of the Development Consent Order application to the Planning

Inspectorate (acting on behalf of the Secretary of State for the Department of Energy Security and Net Zero).

1.3.2. The flowchart below shows the consenting process for any Nationally Significant Infrastructure Project and the current pre-application stage for the Proposed Scheme. Further information on each of the terms is provided in **Section 3**.



### 1.4. CONSULTATION

- 1.4.1. This Preliminary Environmental Information Report (PEIR) forms part of the Statutory Consultation as required by the Planning Act 2008 and EIA Regulations and has been developed to help consultees take an informed view of the likely significant environmental effects of the Proposed Scheme.
- 1.4.2. This Non-Technical Summary (NTS) presents a summary of the more technically detailed PEIR. The Applicant welcomes feedback on any aspect of the Proposed Scheme and will respond to all responses received as part of the Development Consent Order Application.
- 1.4.3. The consultation runs from 16 May 2024 to 20 June 2024. Details on how to provide your feedback on the PEIR are provided in **Section 5.1** of this document.
- 1.4.4. Further information about the Proposed Scheme is provided in the Applicant's other consultation materials, copies of which can be viewed or downloaded from the consultation page of the Proposed Scheme's website: <u>www.lighthousegreenfuels.co.uk.</u>

### 2. THE PROPOSED SCHEME

### 2.1. ABOUT THE APPLICANT

2.1.1. Lighthouse Green Fuels Limited (LGF) is a wholly owned subsidiary of the Alfanar Global Development Company, a global project development, manufacturing and engineering business, operating across 24 countries world-wide in the fields of renewable power and fuels. The Alfanar Group has gained significant experience in developing renewable energy projects and has expertise in SAF technologies.

### 2.2. THE EXISTING ENVIRONMENT

#### SITE LOCATION AND PROPOSED SCHEME BOUNDARY

- 2.2.1. The land that the Proposed Scheme will be built on is referred to as the 'Site'. The Site and an aerial image of the surrounding area is shown in **Figure 1**. **Figure 3** shows an indicative layout for the Proposed Scheme, described in **Section 2.3**.
- 2.2.2. The Site covers an area of 274.49 hectares and includes the existing power plants, TV1 and TV2 previously developed by Air Products Plc on an area of former reclamation pond to the north of Huntsman Drive, north east of Port Clarence.
- 2.2.3. The majority of the Site is located to the north and west of the River Tees, within a large industrial area approximately 5.5km east of Billingham and 1km north-east of Middlesbrough. The Site is almost entirely surrounded by existing, industrial plant and infrastructure to the north, east and south, including the Seal Sands industrial area. To the south west of the Site lies Wilton Engineering Wharf which forms part of the Haverton Hill industrial area, located to the north of Middlesbrough.
- 2.2.4. The eastern portion of the Site, in Redcar and Cleveland, is located on the southern bank of the River Tees, near to the Teesport Container Terminal and the wider extensive Lazenby industrial area.
- 2.2.5. The nearest residential area to the Site is Port Clarence, adjacent to the south-western boundary of the Site. Residential properties are concentrated within 400m of the River Tees along the A1046 Port Clarence Road, in the vicinity of the Wilton Engineering Wharf. There are also a number of community facilities in the area, including the High Clarence Primary School, allotments and a play area. This area of the Site will be used for access and storage only during the construction works and will not form part of the operational SAF Plant described in **Section 2.3**.
- 2.2.6. Nearby visitor attractions include the Royal Society for the Protection of Birds (RSPB) Saltholme Nature Reserve, the River Tees Viewpoint, Teesmouth National Nature Reserve, Middlesbrough Transporter Bridge, and Riverside Stadium. The RSPB Saltholme Reserve Visitor Centre is located approximately 800m to the west of the Site. Teesmouth National Nature Reserve is located approximately 1.5km to the north of the Site.

- 2.2.7. The routes of the King Charles III England Coast Path and North Tees Trail pass close to the western boundary of the Proposed Scheme, as does the Clough Walk long distance footpath, E2 Scotland to England European long-distance path, National Cycleway Routes (1 and 65). The Teesdale Way also crosses the Site at the eastern boundary. It is not envisaged that these footpaths will require diversion or closure as part of the Proposed Scheme.
- 2.2.8. **Figure 2** shows environmental designations and features in proximity to the Site and its surroundings.



# Key

Proposed DCO Application Boundary

# Local Authority Boundary

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Final

# Lighthouse Green Fuels

1 Cornhill, London, England, EC3V 3NR

Lighthouse Green Fuels Ltd

APPLICANT:

Lighthouse Green Fuels PEIR

Figure 1	: Site	Location	Plan

SCALE:	CHECKED:		APPROVED:		
1:22,000	AR		JK		
PROJECT No:	DESIGNED:	DRAWN:	DATE:		
70102442	RS	RS	29/04/	2024	
DRAWING No:	REV:				
70102442-WSP-RP-EP-NTS-0101 1					





### 2.3. THE PROPOSED SCHEME

- 2.3.1. The main components of the Proposed Scheme are as follows:
  - SAF Plant which is made up of various pieces of plant and equipment;
  - Bulk Liquid Storage (for SAF and naphtha);
  - Pipeline, Conveyors, Cable and Other Utility Connections (import and export);
  - General Administration, Storage Buildings and Facilities;
  - Car Parking;
  - Construction access roads;
  - Rail Terminal; and
  - Marine Transport Infrastructure.
- 2.3.2. The Proposed Scheme will also include ancillary infrastructure such as welfare facilities, Site boundary fencing, landscaping, surface water drainage, lighting and CCTV. During operation, contractor maintenance laydown areas and haul roads will also be required.

#### **OPERATION OF THE PROPOSED SCHEME**

#### SAF Plant

- 2.3.3. The process will utilise waste and/or waste biomass and/or biomass residues as the raw input feedstock. Raw feedstock will be sourced nationally from across the UK and delivered to offsite Feedstock Processing Facilities. Within these facilities the feedstock will be thermally processed into a carbon-rich 'Biocarbon'.
- 2.3.4. The Biocarbon Feedstock will be transported mainly by rail to the existing Navigator North Tees Rail Terminal within the Site. Some improvements may be required to the existing railway tracks and storage areas to facilitate loading and storage of the feedstock. It is possible that Biocarbon Feedstock may be delivered by road, either as an alternative to rail or if the rail terminal is not available.
- 2.3.5. Biocarbon Feedstock will be pulverised to create a fine powder before being transferred to the intermediate buffer storage area and then to the gasification unit where it will be heated to create synthesis gas or 'syngas', a mixture of hydrogen, carbon monoxide and CO<sub>2</sub> gases. Syngas from the gasification process will then be compressed and purified to remove CO<sub>2</sub> and other contaminants that may be present leaving an ultraclean syngas. Hydrogen will also be used in the product upgrading process.
- 2.3.6. The clean syngas will be transferred to a 'Fischer-Tropsch reactor' and product upgrading unit, where it will be converted to a liquid fuel. The SAF and the by-product of its production process (naphtha) will be sent to bulk liquid storage tanks within the Site via pipeline. The SAF will be exported by rail, road or by ship using the existing jetties situated at Navigator Terminal, for blending with conventional jet fuel and distributed to airports throughout the UK. The naphtha will also be recycled and used within the SAF production process.

- 2.3.7. Some of the removed CO<sub>2</sub> will be recycled back for use in the existing gasification plant. In the future, the Applicant plans for Lighthouse Green Fuels to connect into the Net Zero Teesside Carbon Capture and Storage Facility, which has been recently consented. Alternative scenarios are being investigated for CO<sub>2</sub> transport and storage until a connection to the Net Zero Teesside Carbon Capture and Storage Facility can be secured. Once a connection is secured, the production of SAF and naphtha will be significantly more carbon efficient and is expected to result in a net reduction in CO<sub>2</sub> emissions.
- 2.3.8. The existing TV1 power plant (Combined Cycle Gas Turbine) will be retained and recommissioned or modified to power the SAF process. A new connection will also be installed to the National Grid to provide additional power.
- 2.3.9. The Applicant is also currently exploring options to use hydrogen produced locally offsite with the SAF production process.
- 2.3.10. A flow diagram of the SAF production process is shown below in **Figure 4**.

#### **Biodiversity Net Gain and Flood Mitigation**

- 2.3.11. Biodiversity Net Gain (BNG) is increasingly being incorporated into planning and development policies to promote environmental sustainability and conservation efforts. BNG is an environmental approach aimed at ensuring that a proposed development contributes positively to biodiversity. The idea is to offset adverse effects on biodiversity caused by construction or land use changes by delivering a net gain in biodiversity elsewhere whilst also creating a measurable and lasting improvement in the habitat for wildlife compared to the pre-development state. As ecological surveys continue, potential areas for BNG and environmental mitigation will be identified and reported in the EIA.
- 2.3.12. Planning policy requires that the Proposed Scheme should not cause adverse flooding impacts to areas upstream or downstream of a Site. To ensure there are not adverse flood risk impacts to neighbouring areas if the Proposed Scheme results in a net loss of floodplain storage, it will provide compensatory storage to negate potential impacts. As flood modelling continues, the potential requirement for compensatory flood storage is still to be determined. If required, this will be presented as part of the EIA.

#### **Operational Hours**

2.3.13. Operational hours will be 24 hours per day. Operations are expected to be concentrated within the SAF Plant, located in the centre of the Site, thereby reducing impacts to neighbouring areas.

#### <u>Staffing</u>

2.3.14. Once operational, the Proposed Scheme will employ approximately 120 direct full time employees at the SAF Plant. In addition, there will be approximately 120 staff at other facilities forming part of the project and approximately 600 full time employees from indirect jobs at other locations in the UK.

![](_page_12_Figure_0.jpeg)

#### Figure 4 – Sustainable Aviation Fuel Process

![](_page_13_Figure_2.jpeg)

![](_page_13_Figure_3.jpeg)

LIGHTHOUSE GREEN FUELS PROJECT Non–Technical Summary The Inspectorate Reference: EN010150

### 2.4. CONSTRUCTION OF THE PROPOSED SCHEME

- 2.4.1. The construction of the Proposed Scheme is anticipated to start in late 2025 and take approximately three years to complete. Early works to prepare the Site for the main civil works, including partial demolition of the existing TV1 and full demolition of TV2 power plants (with the TV1 CCGT being retained) and Site clearance, remediation and levelling, is expected to be carried out in advance of the main construction works. These works will take place under a separate planning consent.
- 2.4.2. Following the early works, any remaining Site clearance (including vegetation clearance), and ground works will be completed prior to the commencement of the main civil construction works.
- 2.4.3. Temporary construction compounds will be established at key locations within the Site (see **Figure 3**). These areas will be used for the storage and stockpiling of materials, office and welfare facilities, parking and areas for the storage of plant and machinery.
- 2.4.4. Standard construction working hours will be Monday to Friday 07:00 to 19:00, and Saturdays 07:00 to 14:30. Working over weekends and for 24 hours may be required for some activities. In these cases, it is anticipated that such hours would require agreement with the local authority in advance of works taking place and the local residents would be notified. These activities will be outlined in the ES and secured via a DCO requirement.
- 2.4.5. It is expected that a peak of approximately 2,600 construction workers will be required.

#### CONSTRUCTION DELIVERY AND ACCESS

- 2.4.6. Larger plant modules and equipment will be delivered to Site via the River Tees to either Wilton Engineering or Clarence Wharfs at Port Clarence. Approximately 300 marine deliveries are anticipated to be required over an 18-month period. These will then be delivered to the Site via the private construction access roads, with a short section of public highway utilised if coming via Wilton Engineering Wharf.
- 2.4.7. Some works may be required to Clarence Wharf to facilitate the offloading of these large modular units should this option be taken forward. Further studies are being undertaken which will confirm the works required. These will be presented in the EIA.
- 2.4.8. Smaller equipment and materials will be delivered directly to the Site via the highway network. Two routes are currently being considered one from the north and a second from the south (the A1185 and the A1046 respectively). It is not anticipated that these construction routes will require any improvements, but this will be confirmed within the EIA. Up to 60 vehicle movements per day are expected during the construction period.
- 2.4.9. Construction workers are likely to use the same routes as construction traffic. Car parking spaces for construction workers will be available on Site.

#### CONSTRUCTION MANAGEMENT AND ENVIRONMENTAL MITIGATION

2.4.11. An Outline Code of Construction Practice will be prepared and submitted with the EIA to identify any mitigation measures proposed to minimise effects such as construction noise, vibration, dust and disturbance to the natural environment and local residents. In addition, an Outline Construction Traffic Management Plan will be prepared, which will set out how construction traffic will be managed to help minimise impacts for other road users and residents.

### 3. APPROACH TO ENVIRONMENTAL IMPACT ASSESSMENT

### 3.1. OVERVIEW

3.1.1. A preliminary assessment of the likely environmental effects of the Proposed Scheme has been undertaken and presented in the PEIR. Consultation so far has helped shape evolving design to avoid or minimise adverse effects, where practicable, and that deliver environmental improvements. The overarching objective of the PEIR is to provide an early assessment, where practicable, of the effects of the Proposed Scheme on the environment, categorise those effects, and identify likely mitigation measures to avoid or reduce them where possible.

### 3.2. PURPOSE OF THE PEIR

- 3.2.1. The PEIR has been prepared at a point in time during the EIA process whilst work to refine the design of the Proposed Scheme is ongoing. The timing of the consultation and publication of the PEIR at this time is deliberate to enable feedback from the consultation to influence the proposals for the Proposed Scheme as the design is progressed, and the EIA is completed, for the Development Consent Order application.
- 3.2.2. The PEIR is intended to enable members of the public, consultation bodies, and other stakeholders to develop an informed view of the potential environmental effect of the Proposed Scheme, where it has been possible to identify them, as well as to comment on aspects of interest. The Applicant is working with stakeholders to develop additional ways in which any significant adverse effects of the Proposed Scheme identified by this preliminary assessment, can be avoided or reduced.

### 3.3. APPROACH TO THE PEIR

- 3.3.1. The preliminary environmental effects have been assessed using appropriate national standards or limits and guidance. In the absence of relevant standards, professional judgement by experienced technical specialists has been used. The sensitivity of each receptor has, where practicable been assessed, as well as the magnitude of impact on the receptor as a result of the Proposed Scheme.
- 3.3.2. The preliminary assessment of the construction stage considers temporary activities required for building the Proposed Scheme and their likely effects on the environment and local community. The assessment of the operational stage looks at the permanent presence of the Proposed Scheme on the environment and local community.
- 3.3.3. The preliminary assessment has been instrumental in shaping aspects of the evolving design of the Proposed Scheme, as well as proposals for its construction and operation. Different strands of the preliminary assessment, each addressing specific environmental issues have sought to evaluate potential effects. At this preliminary stage, the environmental practitioners have proposed likely measures to mitigate adverse effects and, will continue to work with the design team, to embed them into the design of the Proposed Scheme. After considering the implementation these measures, any

remaining substantial effects are referred to as residual 'likely significant effects'. It is these residual effects that are reported in **Section 4** of this Non-Technical Summary of the PEIR. Further details of the findings are presented in the PEIR.

### 3.4. STAGES OF THE EIA

- 3.4.1. To date, the EIA has been progressed by the Applicant through the below key stages:
  - EIA Scoping: An EIA Scoping Report was completed as an early part of the process which considered the characteristics of the Proposed Scheme and the likely environmental effects it could cause. Through an appreciation of the existing environment, scoping identified which environmental topics required to be assessed within the EIA and the relative importance of different aspects within each environmental topic. The Scoping Report was submitted to the Planning Inspectorate on 24 July 2023. A Scoping Opinion was obtained on the 01 September 2023 from the Secretary of State.
  - PEIR: The PEIR is the next stage of the EIA process and provides preliminary environmental information which enables members of the public and local communities, local authorities, statutory bodies, and people whose land or interests would potentially be affected to understand the likely environmental effects of the Proposed Scheme at a preliminary stage of development. The assessments presented in the PEIR are preliminary and based on the information and design detail available at this time which means that it is not possible to draw definitive conclusions. As mitigation has yet to be fully developed, it is likely that some of the effects described in the PEIR and therefore in this Non-Technical Summary will reduce (in terms of their significance), however, at this stage it is necessary to consider all likely significant effects. A detailed assessment will be carried out for the Environmental Statement (ES) (described below).
- 3.4.2. Following the PEIR, the Applicant will prepare and submit an ES, and associated documents. The ES will include a detailed assessment of the likely significant effects and mitigation measures. The ES, and associated documents, will be submitted as part of the Development Consent Order application.

# 4. ENVIRONMENTAL EFFECTS

### 4.1. AIR QUALITY

#### **OVERVIEW**

4.1.1. This topic considers whether the Proposed Scheme would be likely to result in any significant effects on local and regional air quality during construction and operation. It focuses on the potential air quality effects of the Proposed Scheme on human receptors within Stockton-on-Tees and neighbouring authorities and designated ecological sites including the Teesmouth and Cleveland Coast Special Protection Area and Ramsar Site.

#### APPROACH

- 4.1.2. The current background concentrations of air pollutants obtained from the Department for Environment, Food and Rural Affairs background mapping are typical of industrial Teesside with the Site exposed to emissions from other industrial processes, road and marine traffic. Onsite, the annual mean concentrations of nitrogen dioxide currently meet the stipulated Air Quality Standards, ensuring compliance with relevant regulations.
- 4.1.3. Operational activities and their associated transportation have the potential to release combustion products. Preliminary modelling of predicted emissions from the SAF Plant and construction and operational traffic has been undertaken to assess the potential impacts to human and ecological receptors as a result of direct exposure to pollution in ambient air, as well as deposition of pollutants on the ground. A qualitative assessment has also been undertaken to identify the potential impacts of dust emissions generated during the proposed construction works.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

- 4.1.4. Based on the preliminary assessment no significant air quality effects are anticipated for human receptors from construction activities. Potential effects are predicted at some ecological receptors from construction traffic. To ensure effects are minimised, measures will be implemented during the Construction Phase which will be included within an Outline Code of Construction Practice and Outline Construction Traffic Management Plan. Examples of the likely measures include:
  - A Dust Management Plan to include measures to prevent, control and monitor dust emissions from construction activities;
  - Planning the Site layout so that machinery and dust causing activities are located away from receptors, as far as is possible; and
  - Implementing a policy of no idling vehicles.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

- 4.1.5. The preliminary assessment results show that no significant local air quality effects are likely from the SAF Plant emissions or operational traffic for human receptors. Potential impacts are predicted at some designated ecological sites, however background concentrations are already exceeded at these locations without the addition of the Proposed Scheme and thus, the contribution of the Proposed Scheme is minimal compared to the background concentrations. Further consideration of the effects of Air Quality on ecological receptors is included in **Section 4.3**.
- 4.1.6. Further modelling and detailed assessment will be undertaken and presented in the ES to inform the developing design including plant and equipment heights and emissions control measures. The Proposed Scheme will also embed best practice for the minimisation and control of emissions. Emission control limits and operational management controls will be defined in the environmental permit issued by the Environment Agency.

### 4.2. NOISE AND VIBRATION

#### OVERVIEW

4.2.1. This topic considers whether the construction and operation of the Proposed Scheme would be likely to result in any significant noise and vibration effects. It focuses on effects which may arise due to the transport of materials to and from the Site, the operation of plant and equipment and any other activities which could potentially generate significant noise or vibration during the lifetime of the Proposed Scheme.

#### APPROACH

- 4.2.2. The preliminary assessment considers the effects on human receptors, namely people living in, or using, noise sensitive facilities (such as primary schools) in the vicinity of the Site. The potential noise and vibration related effects on terrestrial ecological receptors are considered in **Section 4.3**.
- 4.2.3. Baseline noise surveys have been undertaken, though existing rail traffic has not yet been confirmed. Preliminary modelling of the noise effects of construction road traffic and the operational SAF Plant has been carried out and presented in the PEIR. Full modelling of the Proposed Scheme (including construction activities, SAF Plant and non-SAF Plant elements such as traffic) will be carried out and presented as part of the ES.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

4.2.4. Until the full noise modelling is undertaken it is not possible to determine the likely significant effects of construction activities. The exception to this is construction road traffic noise, which has been assessed as having no significant effects. Given the large distances between the main Site and the nearest sensitive the majority of the proposed construction works are unlikely to significantly affect nearby residents, with the implementation of appropriate mitigation measures. To ensure effects are minimised

during the Construction Phase, noise mitigation measures are likely to include Best Practicable Means and an Outline Code of Construction Practice. Examples of the likely measures will include:

- Use of acoustic screening barriers;
- Locating of plant items away from the nearest noise sensitive receptors where practicable;
- Pre-fabrication of components off-Site to minimise noise generating activities; and
- The use of noise-control equipment on construction plant while it is in use.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

- 4.2.5. The preliminary noise modelling results have shown that no significant effects are likely to occur as a result of the operational SAF Plant. In addition, road traffic noise has also been shown to result in no significant effects. Until full noise modelling is undertaken it is not possible to draw definitive conclusion, as for example, noise generated from railway usage may lead to significant effects. Mitigation measures are likely to include:
  - Locating plant and equipment centrally on-Site to minimise noise effects;
  - The use of acoustic enclosures and screening where appropriate; and
  - Adherence to applicable noise limits to fixed plant on-Site.

### 4.3. TERRESTRIAL ECOLOGY

#### **OVERVIEW**

4.3.1. This topic considers whether the construction and operation of the Proposed Scheme would be likely to result in any significant effects on terrestrial ecology. It focuses on potential effects on protected and/or notable land-based species and habitats, including the loss, fragmentation and pollution of habitats and effects on species due to noise and visual disturbance.

#### APPROACH

4.3.2. A desk study has been undertaken and a series of surveys are underway. There are habitats adjacent to the Proposed Scheme which comprise of wetlands and pools which are important for nature conservation, including the Teesmouth and Cleveland Coast Special Protection Area, Ramsar Site and Site of Special Scientific Interest. These sites have been designated for their diverse range of breeding and non-breeding bird populations (of international importance) and for their nationally important coastal and freshwater habitat features, such as saltmarshes, sand dunes and lowland open waters and margins. These habitats, designations and associated species are assessed to determine potential effects from habitat loss and fragmentation, noise and vibration, lighting, air pollution and other potential effects.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

- 4.3.3. The preliminary assessment has determined there is the potential for areas of designated and non-designated habitats and ecological species to be directly impacted by construction works. Potential significant effects may result from habitat loss, air pollution, noise, lighting and visual disturbance. At this preliminary stage, it has not been possible to conclusively determine the significance of these effects, however, further assessments will be undertaken in the ES to define these once further ecological and noise surveys are completed and as further details are available on exact locations for construction works, construction methods and types of plant and equipment to be used. Appropriate avoidance and/or mitigation measures are likely to include:
  - Design of the Proposed Scheme to avoid habitat loss within designated sites;
  - Timing and programming of construction works to avoid/minimise effects upon protected and/or notable species and habitat;
  - If required, applications will be made for protected species licensing in advance of construction works commencing;
  - Management of construction noise to minimise impacts to ecological species;
  - Development and implementation of a Dust Management Plan;
  - Sensitive consideration of construction lighting; and
  - Provision of compensatory habitat or enhancement of existing habitats.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

- 4.3.4. The preliminary assessment has determined that potential significant effects from the SAF plant operation may arise for certain ecological receptors, such as noise and vibration and air pollution, if suitable mitigation measures are not developed and implemented. A conservative approach has been undertaken for the preliminary assessment and further assessments will be undertaken in the ES to define the significance of these effects once further ecological and noise surveys are completed and as further details are available on the SAF plant design. The ES will also be accompanied by a separate Habitats Regulation Assessment. Mitigation measures will be identified in the ES and are likely to include:
  - SAF Plant design and emissions controls to minimise noise, air quality and visual impacts on ecological receptors;
  - Development and implementation of a Lighting Strategy to avoid light spill to adjacent designated sites; and
  - Management of any habitats created as part of the BNG Strategy.

### 4.4. FRESHWATER AND MARINE ECOLOGY

#### OVERVIEW

4.4.1. This topic considers whether the construction and operation of the Proposed Scheme would be likely to result in any significant effects on freshwater and marine ecology. It focuses on effects associated with the potential loss, damage or disturbance to habitats and designated ecology Sites, pollution risks and the consequences for any freshwater and marine species that might be affected.

#### APPROACH

4.4.2. Adjacent and overlapping with the Proposed Scheme, there are some small areas of Special Protection Area, Ramsar and Site of Special Scientific Interest which could potentially contain aquatic features. The Tees Estuary provides habitat for a range of protected and notable species, including a colony of breeding harbour seals and grey seals, marine and freshwater fish, shellfish, aquatic macroinvertebrates and benthic communities (such as crustaceans and flatworms). Preliminary findings also indicate that the Site contains a series of freshwater channels and water bodies and some habitat potentially suitable for freshwater fish. Some site surveys have been conducted to identify these habitats and associated species, with further survey work being carried out to inform the ES.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

- 4.4.3. The preliminary assessment has identified the potential for significant effects on freshwater and marine ecology to arise during construction of the Proposed Scheme. Improvement works to existing wharves and increased navigation within the Tees Estuary could result in the loss of, or disturbance to habitats and species and increase the risk of vessel strike to marine mammals. Noise and artificial lighting could affect marine mammals and fish and lead to changes in species behaviour. Further assessments will be undertaken in the ES to define the significance of these effects once further ecological surveys are completed and as further details are available on exact locations for construction works, construction methods and types of plant and equipment to be used. The ES will also be accompanied by a separate Habitats Regulation Assessment. Mitigation measures identified as part of the preliminary assessment include:
  - Use of sensitive lighting where any night works are required;
  - Timing and programming of construction works to avoid/minimise effects upon protected and/or notable species and habitat, in particular fish; and
  - Securing and storing construction materials away from watercourses to minimise pollution risks.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.4.4. Until further information has been gathered, it is not possible to assess potential significant effects in full. However, the operation of the Proposed Scheme could

potentially give rise to a number of significant effects. Additional pollutions risks associated with operational facilities and marine movements could result in degradation of habitats and species. Noise generating activities from the operational SAF Plant and vessel movements may also impact habitats and species. Further assessments will be undertaken in the ES to define the significance of these effects once further ecological and are completed and as further details are available on the SAF plant design. Mitigation measures will be identified in the ES and are likely to include:

- Preparation and implementation of a Biosecurity Management Plan to ensure the effective cleaning of marine equipment in order to avoid pollution;
- Development and implementation of a Lighting Strategy; and
- Ensuring operation vessel speeds are moderated in accordance with standard operation procedures to minimise the risks of collisions with marine mammals or damage to intertidal habitats from wave wash.

### 4.5. WATER ENVIRONMENT AND FLOOD RISK

#### OVERVIEW

4.5.1. This topic considers the potential for significant effects on the water environment and flood risk during the Construction and Operational Phases of the Proposed Scheme. It focuses on changes to water flow and to quality arising from any surface borne pollutants such as runoff or spillage.

#### APPROACH

- 4.5.2. The surface water features identified within the Study Area identified via desk study and site walkovers include the River Tees, Holme Fleet, Dabholm Gut, Dabholm Beck, The Fleet and The Mill Race and a network of ditches and small watercourses. The stretches of the River Tees within the Site and extensive areas of wetland in the vicinity of the Site are designated as the Teesmouth and Cleveland Coast Site of Special Scientific Interest, Special Protected Area and Ramsar Sites, with some areas managed by the RSPB, such as the Saltholme Nature Reserve. The majority of the Site is at low risk of flooding but there are certain areas identified as at higher risk, such as the area of the Rail Terminal.
- 4.5.3. The ES will be accompanied by separate assessments in the form of a Flood Risk Assessment and a Water Framework Directive Assessment.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

4.5.4. The preliminary assessment has concluded that the Proposed Scheme will likely increase pollution risks from spillages of fuels or other harmful substances into waterbodies such as the River Tees and Holme fleet that could result in significant effects. As mitigation measures are yet to be fully developed, it is not possible to conclusively determine all effects as part of this preliminary assessment. The mitigation measures are likely to include:

- A series of best practice measures contained within the Outline Code of Construction Practice to minimise the potential for pollution incidents, spills and runoff from construction materials, vehicles and activities;
- Agree with the Environment Agency the need for Flood Risk Activities Permits for construction works taking place within flood zones; and
- Installation of barriers adjacent to sensitive water features to intercept pollution runoff.

#### OPERATIONAL PHASE EFFECTS AND MITIGATION

- 4.5.5. The preliminary assessment has concluded that the Proposed Scheme is not likely to result in any significant effects associated with pollution and runoff in the operation phase to either surface or groundwater. However, some potential significant effects resulting from the need to physically alter water crossings and increased flood risk associated with the new concentration of buildings and infrastructure may occur. As mitigation measures are yet to be fully developed, it is not possible to conclusively determine all effects as part of this preliminary assessment. Further development of measures in relation to flood risk is needed in particular. The proposed mitigation measures are likely to include:
  - The developing design of the Proposed Scheme will take flood risks into account and incorporate appropriate flood defences and mitigation measures. This may include the need to include within the design, the improvement of existing flood defences and provision localised new defences associated with infrastructure such as fuel storage tanks;
  - Prepare and implement an Outline Drainage Strategy containing a suite of measures to minimise flood risk and the risks of pollution incidents; and
  - Enhancement of surface water features achieved through the Biodiversity Net Gain Strategy.

### 4.6. LANDSCAPE AND VISUAL

#### OVERVIEW

4.6.1. This topic considers whether the Proposed Scheme would be likely to significantly affect landscape and visual amenity. This assessment focuses on potential effects on landscape character and the visual amenity of residents and recreational users in the vicinity of the Site.

#### APPROACH

4.6.2. The Site and surrounding area consist primarily of existing and redundant large scale industrial buildings and structures to the north and south of the River Tees, in keeping with the wider industrial area. The land is generally flat with limited vegetation, which enables some direct views towards the Site, including from the nearest residential properties at Port Clarence.

4.6.3. A preliminary assessment has been carried out based on preliminary visualisations of the Proposed Scheme.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

- 4.6.4. Significant effects are not yet fully developed due to the absence of defined mitigation measures at this preliminary stage. With this in mind, the preliminary assessment has determined that significant adverse effects are anticipated for visual receptors associated with the King Charles III England Coast Path and RSPB Saltholme Nature Reserve, where views to construction activity will be prominent along the route. An Outline Code of Construction Practice will be adhered to during construction, likely involving the following measures:
  - Retention and protection of existing mature vegetation;
  - Returning Site compounds to their original use upon completion of construction; and
  - Plant and material storage areas would be sited to avoid landscape and visual effects.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.6.5. Significant landscape and visual effects are also possible during the Operational Phase. The scale and massing of the Proposed Scheme is likely to have a strong characterising presence when perceived from the open, wetland landscapes to the north and west, affecting the East Billingham to Teesmouth Landscape Character Area, as well as views from the RSPB Saltholme Nature Reserve. Opportunities to implement vegetation into existing and new infrastructure to introduce naturalistic landscape elements will improve the setting. Additionally, material choice and surface finishes should complement the building design to result in a unified appearance.

### 4.7. GREENHOUSE GASES

#### **OVERVIEW**

4.7.1. This topic considers the environmental impacts on climate as a result of greenhouse gas emissions from the Proposed Scheme. It considers the magnitude of the emissions compared to the baseline scenario during the construction, operation and decommissioning of the Proposed Scheme.

#### APPROACH

4.7.2. Greenhouse gas emissions are generated by human and natural activity, including atmospheric emissions associated with energy consumption (fuel and power), industrial processes, land use and land use change. Greenhouse gas emission data shows that the main emission sources are linked to electricity, gas and large industrial installations.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

- 4.7.3. The Construction Phase is expected to result in an increase in greenhouse gas emissions compared with the baseline scenario. Measures to reduce greenhouse gas emissions during the construction of the Proposed Scheme are likely to include:
  - If required, the creation of a Greenhouse Gas Reduction Strategy;
  - Considering the carbon reduction hierarchy in design decision making; and
  - Preparing an Outline Construction Traffic Management Plan to regulate emissions.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

- 4.7.4. The impact of the Operational Phase compared with the baseline scenario will be assessed at the ES stage. The Proposed Scheme is anticipated to contribute positively to emissions reductions over its life cycle due to the inherent emissions benefits of SAF. Operational measures to reduce greenhouse gas emissions during operation of the Proposed Scheme will likely include:
  - Maximising energy efficiencies where possible; and
  - Capture of CO<sub>2</sub> emissions upon connection to Net Zero Teesside or alternative CO<sub>2</sub> transport and storage.

### 4.8. CLIMATE CHANGE RESILIENCE

#### **OVERVIEW**

4.8.1. This topic considers how the Proposed Scheme could be affected by climate change and whether over the course of its lifetime (approximately 50 years) it might be vulnerable to impacts from extreme weather events, such as flooding, storms, droughts and heatwaves. It assesses the potential significance of effects taking in to account the Proposed Scheme's vulnerability, the likelihood of climate hazards occurring and the consequences for the safe operation of the Proposed Scheme's plant and infrastructure.

#### APPROACH

- 4.8.2. Climate data for the Stockton-on-Tees meteorological station (for the period between 1991 and 2020) is considered most representative of existing weather conditions for the Site. When compared with the climate change projections, published by the Met Office, conditions over the Proposed Scheme's lifetime are likely to become warmer and wetter in winter and hotter and drier in summer, with an increase in the intensity and frequency of extreme events. The Site, being located along the tidal River Tees, is also exposed to risks of sea level rise and flood risk, with projections indicating a potential rise in sea level by approximately 30cm over the Proposed Scheme's 50 year operational lifespan.
- 4.8.3. It was agreed as part of the EIA Scoping stage that there was no risk of significant effects during the Construction Phase. As a result, the assessment of Construction Phase effects has been scoped out of the EIA.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.8.4. Residual effects are not yet fully developed due to the absence of fully developed mitigation measures at this preliminary stage. However, the preliminary assessment has concluded that the majority of potential risks would not result in any significant effects. The Proposed Scheme would be designed in accordance with applicable engineering standards and UK Building Regulations, ensuring that the structures will be designed and able to accommodate potential climate risks such as extreme weather and flooding. Additional climate resilience mitigation measures will be presented within the ES, if required.

### 4.9. MATERIALS AND WASTE

#### **OVERVIEW**

4.9.1. This topic considers whether the construction and operation of the Proposed Scheme would be likely to result in significant effects on the consumption of material resources and the generation and disposal of waste.

#### APPROACH

- 4.9.2. There are some areas of infrastructure in active use within the Site, including the TV1 an TV2 power plants, jetties, rail and road infrastructure. These uses require small quantities of materials for their routine maintenance and repair. Those parts of the Site which are currently in active use are likely to generate some waste, including waste which is capable of being recycled and waste that may need to be sent to landfill.
- 4.9.3. Quantitative data to inform a full assessment of the materials and waste effects of the Proposed Scheme was unavailable for inclusion in the preliminary assessment. The likely types and estimated quantities of construction waste, operational waste and demolition waste generated by the Proposed Scheme will be presented as part of the ES.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

- 4.9.4. Despite anticipated material usage and waste generation, no significant environmental effects are anticipated during construction of the Proposed Scheme with the below mitigation measures likely to be implemented:
  - Reuse of Site arisings;
  - Development and implementation of a Site Waste Management Plan; and
  - Development and implementation of a Materials Management Plan.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.9.5. Operation of the Proposed Scheme will generate wastes. Most of these wastes have high recovery/recycling potential for which there is adequate handling capacity. Assuming compliance with a Waste Management Plan, it is expected that much of the

Proposed Scheme's operational waste would be diverted from landfill in accordance with the waste hierarchy, resulting in no significant effects.

#### DECOMMISSIONING PHASE EFFECTS AND MITIGATION

4.9.6. The Proposed Scheme has been designed to have an operational lifespan of 50 years, after which it is assumed that the SAF Plant would be decommissioned. Structures will be demolished or removed to ground level, which is likely to generate some demolition waste. Whilst the quantities of decommissioning waste have not yet been confirmed, it is assumed that waste management measures and a Decommissioning Plan will be adopted, which would most likely mitigate against the risk of significant adverse effects.

### 4.10. SOCIO-ECONOMICS

#### OVERVIEW

4.10.1. This topic considers whether the Proposed Scheme would be likely to result in any significant socio-economic effects in the local area and the wider North East region. It focuses on employment generation effects and the demand for worker accommodation in the Proposed Scheme's Construction Phase.

#### APPROACH

- 4.10.2. 2021 population estimates indicate that there are almost 600,000 people living in the local area and approximately 2.6 million living in the North East Region, of which approximately 60% are of working age. The Site is located within an industrial area, which provides employment in sectors mostly involving, chemicals, energy and fuel production, renewables, waste and manufacturing for offshore industries.
- 4.10.3. An assessment methodology for employment generation has been used to assess construction employment effects. An assessment of operational employment generation has not been included as part of the PEIR as the number of jobs generated is not anticipated to significantly affect the employment marked.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

4.10.4. It is anticipated that construction of the Proposed Scheme could generate up to 2,600 temporary jobs at the peak of activity within the three year construction programme, having a positive effect on the socio-economic context of the local and regional area. The Applicant will work proactively to provide local employment opportunities and to enable access to training where possible through the Proposed Scheme. It is also anticipated that a Skills and Employment Plan will be prepared.

### 4.11. POPULATION AND HUMAN HEALTH

#### OVERVIEW

4.11.1. This topic considers whether the construction and operation of the Proposed Scheme would be likely to result in significant effects on population and human health. It focuses on the potential for significant effects on walkers and cyclists, terrestrial recreation and

human health in the Construction Phase and the effects on terrestrial recreation, human health and disruption to businesses reliant on the River Tees in the Operational Phase.

#### APPROACH

- 4.11.2. There are seven Public Rights of Way within 500m of the Site, primarily footpaths in the vicinity of the Bran Sands Wastewater Treatment Plant off Tees Dock Road. The route for the King Charles III England Coast Path and North Tees Trail runs along the western edge of the Site on the A178 Seaton Carew Road, passing the Royal Society for the Protection of Birds Saltholme Nature Reserve. There are also two National Cycle Network Routes (1 and 65), which pass to the south of the Proposed Scheme. There are 18 businesses within 500m of the Proposed Scheme that rely upon access to the River Tees for their operations, including the Wilton Group, N+P, Navigator Terminals and P&O Ferries.
- 4.11.3. Assessments undertaken within topics such as air quality, noise and vibration, water environment and flood risk and traffic and transport have informed the population and human health assessment.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

4.11.4. No significant effects on population and human health are predicted to arise during construction of the Proposed Scheme. Whilst the design of the Proposed Scheme is still at a preliminary stage, the Applicant is committed to maintaining access for the Public Rights of Way and recreational routes during construction. As such, no closure or diversion of the Public Rights of Way, National Trails or National Cycle Network routes are anticipated. Adherence to the Outline Construction Traffic Management Plan will help minimise the effects of construction on travel and/or access to facilities.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.11.5. No significant effects on population and human health are anticipated during the operation phase. Effects on businesses that rely on the River Tees will be confirmed at the ES stage. Embedded design features including new landscape planting, the provision of noise barriers and the careful siting of noise producing equipment within the Proposed Scheme will provide mitigation for potential long-term operational effects on amenity.

### 4.12. TRAFFIC AND TRANSPORT

#### OVERVIEW

4.12.1. This topic considers whether the construction, operation and decommissioning of the Proposed Scheme would be likely to result in significant traffic and transport effects. It focuses on potential increases in traffic associated with the movement of materials to and from the Site and how such increases might affect both motorised and non-motorised users of the area's highway network. The matters considered include severance, journey time delays, disruption to public transport, highway safety, hazardous loads and loss of pedestrian and/or cyclist amenity.

#### APPROACH

- 4.12.2. There are two main routes between the Site access at Huntsman Drive and the Strategic Road Network. The first is via the A1185 and A689 which connect with the A19 Wolviston Interchange, the second is via the A1046 Haverton Hill Road, which connects with the A19 Portrack Interchange. Both routes involve a mix of single and dual carriageway roads. The closest bus route serving the Site is the Stagecoach No. 1 Service. It stops on the A178 Seaton Carew Road, just north of the Huntsman Drive junction. The bus runs two services per hour Monday to Saturday between 07:00 and 19:00, with an hourly service on Sundays.
- 4.12.3. The preliminary assessment undertaken has been informed by estimates of the likely number of vehicle movements that would be generated by the Proposed Scheme. It considers the effects of the change of traffic flows on links within the Study Area in relation to severance, journey time delays, disruption to public transport, highway safety, hazardous loads and loss of pedestrian and/or cyclist amenity.
- 4.12.4. Detailed traffic modelling and an assessment of the effects on journey times, rail movements, highway safety and public transport will be presented within the ES.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

- 4.12.5. No significant effects are anticipated on severance or pedestrian delay, pedestrian amenity, and fear and intimidation. Effects such as driver delay and road safety cannot be fully assessed at this stage and will be presented in the ES. Relevant mitigation measures are likely to include:
  - Develop and implement an Outline Construction Traffic Management Plan and Outline Construction Worker Travel Plan; and
  - Promotion of sustainable modes of transport in the developing design of the Proposed Scheme.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.12.6. No significant effects are anticipated in terms of severance or pedestrian delay, pedestrian amenity, and fear and intimidation, from operational traffic. Effects such as driver delay and road safety cannot be fully assessed at this preliminary stage and will be presented in the ES. A Workplace Travel Plan will be developed and implemented to encourage staff to travel by more sustainable and active transport options.

### 4.13. MAJOR ACCIDENTS AND DISASTERS

#### OVERVIEW

4.13.1. This topic considers whether the Proposed Scheme would be vulnerable to major accidents and disasters during its Construction and Operational Phases. A major accident is an event that threatens serious damage to human health and/or the environment, and a disaster is a naturally occurring phenomenon such as an extreme weather event.

#### APPROACH

- 4.13.2. The baseline relevant to major accidents and disasters comprises features that could represent a potential hazard to the Proposed Scheme, sensitive environmental receptors that could be at risk and current major accidents and disasters risk in the locality at present, without the Proposed Scheme coming forward.
- 4.13.3. There are 32 Control of Major Accident Hazards Sites (designated sites that store or handle large quantities of hazardous industrial chemicals) within 5km of the Proposed Scheme, including some within or adjacent to the Site, such as the existing TV1 and TV2 power plants. Control of Major Accident Hazards Sites are sites which generally involve the storage or handling of large quantities of industrial or hazardous chemicals, and therefore present a potential hazard to the Proposed Scheme.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

4.13.4. Based on a preliminary assessment, three major accidents and disasters risks could potentially arise during construction of the Proposed Scheme involving accidental damage to third party installations, most notably major accident hazard pipelines. This could lead to large scale events such as fire, explosion, the release of harmful gas and spillages, which could affect people and property and other sensitive environmental receptors. The implementation of risk management measures described in an Outline Code of Construction Practice will likely mean that these Construction Phase risks would be managed to be as low as reasonably practicable.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.13.5. The preliminary assessment identified the potential for 15 major accidents and disasters events in the Operational Phase, that could result in fire, explosion, the release of harmful gas, spillage, or contamination that could affect nearby people, property and sensitive environmental receptors. The implementation of an Environmental, Health and Safety Plan will likely mean that these Construction Phase risks would be managed to be as low as reasonably practicable. Two of the 17 risks (involving a large-scale spillage of SAF) are considered to warrant further investigation. The significance of these risks cannot be confirmed until appropriate mitigation measures have been defined. This will be presented in the ES.

### 4.14. MARINE NAVIGATION

#### OVERVIEW

4.14.1. This topic considers whether the construction and operation of the Proposed Scheme would be likely to result in any significant effects on marine navigation. Notably, the Applicant intends to make use of marine infrastructure for the transport of large components to the Site during construction and for the export of SAF once the Proposed Scheme becomes operational.

#### APPROACH

- 4.14.2. Teesport is one of the largest and busiest ports in the UK and has a diverse mix of vessel traffic activity. The port is primarily known for its bulk cargo operations and container handling. Commercial vessels range from small port service crafts to large commercial tankers and can be draught restricted. The Tees harbour has extensive marine infrastructure including terminals, quays, jetties, and berths; consequently, careful passage planning is crucial for ensuring safe navigation through this busy area.
- 4.14.3. A Navigation Risk Assessment is being undertaken, the outputs of which will be used to inform a judgement on significance of effects arising from the Proposed Scheme.

#### CONSTRUCTION PHASE EFFECTS AND MITIGATION

4.14.4. Marine navigation effects during the Construction Phase are yet to be assessed and will be presented in the ES. Off-loading operations are likely to be restricted by tides at both wharf sites, and especially at Clarence Wharf, creating a potential risk of vessel grounding. There is also a potential risk of vessels making contact with fixed structures when off-loading, particularly when vessels swing round in the channel for mooring. Finally, there is the possibility of collision between Construction Phase vessels and third-party vessels, given the high vessel activity at Teesport. A Navigation Risk Assessment will be undertaken which will identify a set of mitigation measures, which are likely to include plans to manage vessel traffic and the reactive response to marine emergencies.

#### **OPERATIONAL PHASE EFFECTS AND MITIGATION**

4.14.5. Marine navigation effects during the Operational Phase are yet to be reported and will be presented in the ES. The Applicant is currently reviewing operational marine vessel movements, with plans for further discussion with the Statutory Harbour Authority regarding the current movements within the River Tees. Upon agreement on the viability of exporting products from the Site by vessel, an assessment based on assumed vessel movements will be conducted, informing the ES.

### 4.15. CUMULATIVE EFFECTS

4.15.1. The ES will also consider how different effects from the Proposed Scheme might be experienced in combination with each other (these effects are called intra-project effects), along with those of other related developments nearby (these effects are called inter-project effects). The latter assessment considered potential developments whose effects might intensify, broaden or prolong those of the Proposed Scheme, based on available information, and whether significant cumulative effects would be likely. The ES will contain a full Cumulative Effects Assessment.

# 5. CONSULTATION AND NEXT STEPS

### 5.1. CONSULTATION

- 5.1.1. This Non-Technical Summary of the PEIR has been published for consultation purposes. It is intended to help those interested in the Proposed Scheme or who might be potentially affected by it, to understand the Proposed Scheme and its potential likely significant environmental effects. The Non-Technical Summary should be read alongside the other supporting consultation materials, such as the consultation brochure and PEIR, which are available to view or download from the Applicant's website, linked below.
- 5.1.2. The consultation, which is a statutory requirement under the Planning Act 2008 and EIA Regulations, is an important opportunity for people to share their views and feedback on the Proposed Scheme, ahead of the Development Consent Order application being submitted. The consultation period is taking place between **16 May 2024 and 20 June 2024**. The Applicant will have regard to all feedback provided by the close of the consultation, which may shape the developing design of the Proposed Scheme or influence matters to be considered in the ES.
- 5.1.3. The Applicant is hosting a series of public consultation events, which will provide an opportunity to find out more. Details of these events are provided in the Applicant's Statement of Community Consultation which is published on its website (see details below).
- 5.1.4. Feedback is invited on any aspect of the developing design or on the preliminary environmental information presented. A consultation feedback form/questionnaire is available on the Applicant's website, linked below, which can be completed on-line, at one of the published consultation events, or downloaded, completed and returned by post. Alternatively, written feedback can be submitted by letter or email. Details of where feedback should be sent are set out below.

Applicant's Website (for on-line feedback form and/or further information)	https//www.lighthousegreenfuels.co.uk/consultation/ Consultation – Lighthouse Green Fuels.
Applicant's Phone Number	0800 157 7346
Applicant's Email Address	info@lgf.co.uk
Applicant's Postal Address	FREEPOST LIGHTHOUSE GREEN FUELS (no stamp required)

### 5.2. NEXT STEPS

- 5.2.1. The Applicant has a legal duty under the Planning Act 2008 to have regard to all consultation feedback received by the end of the consultation period. It will use this feedback to develop its designs and to inform its environmental and other assessments.
- 5.2.2. The Development Consent Order Application, including its supporting ES, will be submitted to the Secretary of State, who will then appoint inspectors from the Planning Inspectorate to examine the application on its behalf (referred to as the Examining Authority). Once accepted for examination, there will be a further opportunity for interested parties to make representations, either in writing or at an oral hearing. The Examining Authority will then make a recommendation to the Secretary of State as to whether a Development Consent Order should be granted. The Secretary of State will make the final decision.
- 5.2.3. The Applicant anticipates submitting its Development Consent Order Application by Autumn 2024, with a view to a decision being made by Autumn 2025. If approved, the Applicant aims to commence construction of the Proposed Scheme by late 2025, in accordance with the timetable in the Government's Jet Zero Strategy for delivering new SAF production capacity in the UK.

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# **Lighthouse Green Fuels Limited**

1 Cornhill London EC3V 3ND

www.alfanar.com