

Lighthouse Green Fuels

Development Consent Order

Preliminary Environmental Information Report

Chapter 20: Marine Navigation

Planning Inspectorate Reference: EN0110025

2nd December 2025

Contents

1. Marine Navigation	1
1.1 Introduction	1
1.2 Policy, Legislation and Guidance	1
1.3 Scoping Opinion and Engagement	3
1.4 Assessment Approach	5
1.5 Assessment Methodology and Significance Criteria	5
1.6 Potential Significant Effects	10
1.7 Sensitive Receptors	10
1.8 Baseline Data Collection	11
1.9 NRA Study Area	11
1.10 Baseline Conditions and Future Baseline	12
1.11 Management of Navigation	13
1.12 Preliminary Assessment of Likely Impacts and Effects	26
1.13 Decommissioning	32
1.14 Additional Design Mitigation and Enhancement Measures	33
1.15 Monitoring	33
1.16 Residual Effects	33
1.17 Next Steps	33
References	35

Tables

Table 1-1	Marine Navigation, Summary of Key Policy, Legislation and Guidance	2
Table 1-2	Summary of the EIA Scoping Opinion in Relation to Marine Navigation	3
Table 1-3	Marine Navigation Engagement Summary	5
Table 1-4	NRA Frequency Parameters	8
Table 1-5	NRA Consequence Parameters	8
Table 1-6	Risk Matrix	9
Table 1-7	Risk Classification	10
Table 1-8	Adjacent Terminals	12
Table 1-9	Summary of baseline risk controls	14
Table 1-10	Approximate count of vessel transits by type in the NRA Study Area and at each dock area during the one-year period	18
Table 1-11	Relevant incidents within the NRA Study Area reported to the MAIB (2010 - 2024)	25

Insets

Inset 1-1	NRA Study Area and Adjacent Terminals	12
Inset 1-2	General Cargo Vessel Tracks.	19
Inset 1-3	Tanker Vessel Tracks.	20
Inset 1-4	Fishing Vessel Tracks.	21
Inset 1-5	Recreational Vessel Tracks.....	22
Inset 1-6	Workboat Vessel Tracks.	23
Inset 1-7	Incident count by types (2015- 2025)	24
Inset 1-8	Incident type and count by severity.	25
Inset 1-9	Inbound arrival of tanker vessel BAYOU SUN in relation to Proposed Development Site.....	28
Inset 1-10	Inbound arrival of tanker vessel OTTO H in relation to Proposed Development Site	28
Inset 1-11	Indicative clearance dimension when stern to mooring is utilised	31
Inset 1-12	Panamax Vessel Clearance to Navigation Terminal No.2 Jetty	32

1. Marine Navigation

1.1 Introduction

- 1.1.1 This Chapter of the Preliminary Environmental Information Report (PEIR) reports the preliminary assessment of the likely significant effects of the Proposed Development on marine navigation during the construction and operational phases of the proposed Lighthouse Green Fuels (LGF) project. Relevant further assessment will be presented in the Environmental Statement (ES).
- 1.1.2 This chapter of the PEIR considers the likely significant effects of the Proposed Developments' three marine phases:
- **Phase 1:** Demolition of existing jetties, construction of the quay and dredging of the berth pocket and access channel;
 - **Phase 2:** Marine operations during the construction of the LGF plant; and
 - **Phase 3:** Marine operations during the operational phase of the facility (the import of biomass materials via the quay).
- 1.1.3 Activities during decommissioning of the Proposed Development has been scoped out of the navigation assessment as described at Section 1.13.
- 1.1.4 Navigational impacts arising from the export of Sustainable Aviation Fuel (SAF) products during the operational phase of the Proposed Development are not considered. The assumption is that SAF will be exported from existing third party liquid cargo terminals via marine, rail loading facilities or HGV within North Tees under existing consents or by HGV from the LGF Main Site.
- 1.1.5 A Navigation Risk Assessment (NRA) will expand on the findings of this PEIR Chapter and will be included as a technical appendix to the Environmental Statement (ES) submitted as part of the Development Consent Order (DCO) application. This chapter is based on the current project design concept and any changes will be discussed and agreed with the Statutory Harbour Authority.

1.2 Policy, Legislation and Guidance

- 1.2.1 The policy, legislation, and guidance relevant to the assessment of marine navigation for the Proposed Development is summarised in **Table 1-1**.

Table 1-1 Marine Navigation, Summary of Key Policy, Legislation and Guidance.

Policy, Legislation or Guidance	Description
Policy	
National Policy Statement for Ports (2012) Ref 1	Sets out the Department for Transport's policy, and framework for decisions, for new port developments. [NOTE: an update to this document has been through public consultation and is shortly due to be published. The ES will be reviewed/updated against the new version rather than the 2012 version].
National Policy Statement for energy (EN-1) (2024) Ref 2	Planning guidance for developers of nationally significant energy infrastructure projects.
National Policy Statement for renewable energy infrastructure (EN-3) (2024) Ref 3	Planning guidance for developers of nationally significant renewable energy infrastructure projects.
UK Marine Policy Statement (2020) Ref 4	This Marine Policy Statement (MPS) is the framework for preparing Marine Plans and taking decisions affecting the marine environment.
North East Marine Plans (2024) Ref 5	Information and documents on the development of the North East Marine Plans.
Department for Transport (DfT) Ports and Marine Facilities Safety Code (PMSC) (2025)Ref 2	A UK national standard developed by the DfT and the Maritime and Coastguard Agency (MCA). It provides a framework to ensure safe marine operations in ports, harbours, terminals, marinas, and other marine facilities across the UK.
Teesport Marine Safety Plan 2024 to 2026 Ref 7	Document compiled to demonstrate how navigation safety is managed within Teesport and illustrate how port policies and procedures satisfy the requirements of the PMSC.
Legislation	
The Tees and Hartlepool Harbour Byelaws 1977 & 1985 (PD Ports, 1985)Ref 8	Grants the Tees and Hartlepool Port Authority certain powers and duties as the harbour authority for the River Tees.
General Directions for Safety of Navigation, Persons and Property in the Harbour (PD Teesport) (PD Teesport, 2021). Ref 9	To establish mandatory rules and procedures for the safe navigation, berthing, operation, and conduct of vessels and individuals within the Tees and Hartlepool Harbour area, ensuring the protection of life, property, and the marine environment.
Harbours, Docks & Piers Clauses Act 1847 (UK Parliament, 1847) Ref 10	The Harbours, Docks, and Piers Clauses Act 1847 is a foundational piece of UK legislation designed to standardise and consolidate provisions commonly included in individual Acts that authorise the construction and improvement of harbours, docks, and piers.
Tees and Hartlepool Port Authority Act 1966 (UK Parliament, 1966) Ref 11	A local Act of Parliament that established the statutory framework for the governance and operation of the Tees and Hartlepool Port Authority
Tees and Hartlepool Port Authority Act 1982 (UK Parliament, 1982) Ref 12	An Act to authorise the Tees and Hartlepool Port Authority to stop up and extinguish certain public rights of way; and for connected purposes.
Guidelines	

Policy, Legislation or Guidance	Description
Ports and Marine Facilities Safety Code – “Guide to Good Practice on Port Marine Operations” (DfT, 2025) Ref 13	A guide to supplement the Port and Marine Facilities Safety Code, containing useful information and detailed guidance on issues relevant to the management of ports and other marine facilities.
River Tee Passage Plan (PD Teesport, 2024) Ref 14	This guide is prepared by PD Teesport to assist mariners in creating a passage plan for navigation in the River Tees
Notice to Mariners – PD Ports (PD Teesport) Ref 15	The Notices to Mariners contain important navigational information including chart updates, changes in channels and aids to navigation.
International Maritime Organisation (IMO), Revised Guidelines for Formal Safety Assessment 2018 (IMO 2018) Ref 16	Offers a method for identifying and evaluating hazards and risks related to marine operations, along with suitable mitigation measures, in a clear and consistent manner.
Marine Guidance Note (MGN) 654 Offshore Renewable Energy Installations (OREI) – Guidance on UK Navigational Practice, Safety and Emergency Response (2021) Ref 18	This MGN outlines considerations for assessing the potential impact of the Proposed Development on navigational safety and emergency response. Applicable in UK waters, Territorial Sea, and Exclusive Economic Zone, it offers guidance on the Navigation Risk Assessment (NRA) for any UK marine project.

1.3 Scoping Opinion and Engagement

- 1.3.1 An Environmental Impact Assessment (EIA) Scoping Opinion was received by the Applicant from the Planning Inspectorate (the Inspectorate') on behalf of the Secretary of State dated 11 November 2025.
- 1.3.2 The scoping responses from the Planning Inspectorate in relation to marine navigation and how these requirements should be addressed by the Applicant are set out in **Table 1-2**.
- 1.3.3 **Table 1-3** provides a summary of the engagement undertaken to inform the marine navigation assessment to date.

Table 1-2 Summary of the EIA Scoping Opinion in Relation to Marine Navigation

Section ID	Applicant's Proposed Matters to Scope out	Scoping Opinion Comments	Response
Paragraph 20.6.13	Decommissioning	<i>The Scoping Report proposes to scope out an assessment of decommissioning on the basis that the proposed development would operate for at least 30 years after commissioning. Therefore, the applicant considered it is not appropriate to outline decommissioning operations due to the extent of unknown factors related to the future marine baseline and</i>	The decommissioning of the site, from a marine navigation perspective, is expected to result in lower effects than the construction phase, primarily because the volumes of materials being removed from Site will be far lower.

Section ID	Applicant's Proposed Matters to Scope out	Scoping Opinion Comments	Response
		<i>technical requirements for decommissioning. Furthermore, a decommissioning plan is proposed to be prepared at the point of decommissioning. The Inspectorate is content with this approach but would expect an outline Decommissioning Plan, which describes any measures likely to be in place during decommissioning which would reduce the impact of the proposed development on marine navigation to be provided as part of the application documents.</i>	In addition, the pre-fabricated modules that would be brought to Site during construction as abnormal loads would be cut up during decommissioning prior to removal from Site. An NRA will be produced to support the ES and will include consideration of the proposed development's impact on marine navigation during the decommissioning phase.
Table 20.4	Risks associated with export of finished product – operational phase	<i>The Scoping Report proposes to scope this matter out during operational phase on the basis that the export operations are anticipated to use existing infrastructure and agreements, with no material change to the vessel traffic and marine navigation expected in the area. Paragraph 20.6.11 states that the use of existing infrastructure and agreements and the number of vessel movements in relation to export vessel navigation during the operational phase are yet to be confirmed. Paragraph 20.9.1 states that Statutory Harbour Authority agreement would be sought on the scope of the assessment. On the basis of the information provided the Inspectorate does not agree to scope this matter out at this stage. The ES should assess the risks associated with export of finished product during operational phase or evidence should be provided to demonstrate that the relevant statutory consultees agreed to scope this matter out in the ES.</i>	In preparing this pNRA (Preliminary Navigation Risk Assessment) NASH Maritime undertook a meeting with PD ports. The purpose of this meeting was to provide a project introduction for PD Ports, agree the Navigation Risk Assessment approach, risk assessment methodology, identify project input data and confirm key engagement with PD ports, (see Table 1-3). As documented in the minutes of the meeting, PD ports agreed that Liquid bulk export should not be included in the study as it will be carried out via a third party and will be part of the port's business-as-usual activity. The project team will seek to reaffirm this assumption with PD Ports at the earliest opportunity and prior to submission of the ES.

Table 1-3 Marine Navigation Engagement Summary.

Body/Organisation	Engagement Date	Engagement Outcomes
PD Ports	03-Oct-2025	Meeting to provide project introduction for PD Ports, agree Navigation Risk Assessment approach, risk assessment methodology, identify project input data and confirm key engagement with PD Ports. • Three NRA assessment scenarios were agreed. • A cautious worst-case approach is to be adopted where some project details are yet to be fully confirmed. • The extent of the NRA study area was agreed. • The NRA methodology was confirmed and will expand on PD Ports' existing Port Wide Risk Assessment.
Marine Management Organisation	13-Nov-2025	Meeting to discuss project scoping with the MMO agree ES approach, risk assessment methodology, identify project input data and confirm engagement with the MMO.

1.4 Assessment Approach

- 1.4.1 It is recognised that the quayside design, construction methodology and exact vessel types to arrive at the quayside (in the delivery of modular plant, abnormal indivisible loads (AIL) and bulk materials to build the Proposed Development and the delivery of feedstocks which will arrive by sea during plant operation) are not fully confirmed at this stage.
- 1.4.2 The Navigation Risk Assessment (NRA) will undertake a 'Rochdale Envelope approach' whereby a reasonable worst-case scenario is assessed. For each phase of the project a 'Project Vessel' has been defined, this being the largest vessel (by length overall, beam and draft) being used during that phase. All NRA assumptions will be agreed with PD Ports as Statutory Harbour Authority.

1.5 Assessment Methodology and Significance Criteria

- 1.5.1 An NRA will be undertaken and included as a technical appendix to the ES, to assess navigation risk during the three identified Proposed Development phases, namely:
- **Phase 1:** Construction of the quay (and demolition of existing jetties) and dredging of the berth pocket and access channel;
 - **Phase 2:** Marine operation during the construction of the LGF plant; and
 - **Phase 3:** Marine operation during the operational phase of the facility.
- 1.5.2 The NRA will incorporate analysis of data (including incident and Automatic Identification System (AIS) data), consultation with stakeholders, expert

- judgement, and local knowledge to establish risk and identify appropriate controls.
- 1.5.3 The approach to, and methodology for, the risk assessment has been agreed with PD Ports at the meeting on 3rd October 2025 (see Table 1-3).
- 1.5.4 The NRA will follow the risk assessment methodology utilised in the Teesport Port Wide Risk Assessment (Ref 17) and will include the same identified vessel types, hazards and baseline port risk scores.
- 1.5.5 This approach allows for a direct comparison between navigational risk profile within the Teesport Port Wide Risk Assessment (baseline risk) with future Proposed Development scenarios.
- 1.5.6 The NRA methodology is fundamentally based on the Formal Safety Assessment methodology as adopted by IMO (Ref 16Ref **16**).). It also follows the guidance set out within the UK Department for Transport Ports and Marine Facilities Safety Code (PMSF) (Ref 2).
- 1.5.7 The risk assessment process will ascertain risk levels and specify the requirement to apply measures to mitigate risk to acceptable levels, in line with the As Low As Reasonably Practicable (ALARP) principle. Identified navigation hazards will be scored in terms of frequency (the anticipated frequency of incident occurrence) and consequence (the expected consequence of each hazard were it to occur) in order to establish levels of risk.
- Hazard frequency parameters that will be utilised in the assessment are outlined in **Table 1-4**; and
 - Hazard consequence parameters that will be utilised in the assessment are outlined in **Table 1-5**.
- 1.5.8 Risk will be calculated for each consequence category (e.g. people, property, environment and stakeholder), using the risk matrix, (see **Table 1-6**).
- 1.5.9 Risk scores are calculated for each hazard under the “Most Likely” and “Worst Credible” scenarios for each of the consequence criteria. This generates eight individual risk scores per hazard. These individual risk scores are documented in the “Ranked Hazard Lists”.
- 1.5.10 The risk scores are then analysed further to obtain four indices for each hazard as follows:
- The average risk score of the categories in the ‘most likely’ set;
 - The average risk score of the categories in the ‘worst credible’ set;
 - The maximum risk score of the categories in the ‘most likely’ set; and
 - The maximum risk score of the categories in the ‘worst credible’ set.
- 1.5.11 These indices are averaged to produce a single numeric risk value

representing an aggregate individual risk score weighted towards higher scoring components. The hazards are classified into risk categories depending on the single numeric risk value assigned (see **Table 1-7**). The assigned risk category determines the action that will need to be taken.

- 1.5.12 The hazard list is then sorted in order of the aggregated risk score to produce a 'Ranked Hazard List' with the highest risk hazards prioritised at the top. The ranked hazard list documents the individual category risk scores in more detail.
- 1.5.13 All risk scores, whether individual per consequence category, or overall, for a hazard are scored on a scale of 0 (low risk) to 10 (high risk). Where the resultant risk levels cannot be considered in the low/negligible risk range (see **Table 1-7**), possible risk controls / mitigation measures are identified for implementation.
- 1.5.14 The IMO Formal Safety Agreement guidelines allow the selection of definitions of frequency and consequence to be made by the organisation carrying out the risk assessment. This is important, as it allows risk to be applied in a qualitative and comparative way. To identify high risk levels in a purely mathematically quantitative way would require a large volume of casualty data, which is rarely available in the maritime context. ALARP can be accepted as being "Tolerable", if the further reduction of the risk is impracticable, or if the cost of such reduction would obviously be highly disproportionate to the improvement. It can also be considered "Tolerable", if the cost of reducing the risk is greater than any improvement gained.
- 1.5.15 Put simply, risk can only be ALARP if all reasonable measures have been put in place to reduce risk to "Tolerable" levels. If a risk scores within the ALARP risk classification range, then this does not automatically mean the hazard can be classified as ALARP and therefore "Tolerable". If the level of risk remains within the ALARP zone following the application of appropriate and proportionate additional risk control measures, then the level of risk can be deemed "Tolerable" providing the cost of introducing further risk control measures is not disproportionate to the level or risk reduction anticipated.

Table 1-4 NRA Frequency Parameters.

Scale	Description	Definition
5	Frequent	An event that could be expected to occur more than once per year.
4	Likely	An event that could be expected to occur between 1 to 10 years.
3	Possible	An event that could be expected to occur between 10 to 100 years.
2	Unlikely	An event that could be expected to occur between 100 to 1000 years.
1	Remote	An event that could be expected to occur less than once in 1000 years.

Table 1-5 NRA Consequence Parameters.

Cat	People	Property	Environment	Stakeholder
1	Negligible Possible very minor injury (e.g. bruising)	Negligible Costs <£10k	Negligible No effect of note. Tier 1 may be declared but criteria not necessarily met Costs <£10k	Negligible Costs <£10k
2	Minor (single minor injury)	Minor Minor damage Costs £10k – £100k	Minor Tier 1 – Tier 2 criteria reached. Small operational (oil) spill with little effect on environmental amenity CEAS Site warning Costs £10K–£100k	Minor Bad local publicity and/or short-term loss of revenue Costs £10k – £100k
3	Moderate Multiple minor or single major injury	Moderate Moderate damage Costs £100k - £1M	Moderate Tier 2 spill criteria reached but capable of being limited to immediate area within site COMAH site evacuation Costs £100k -£1M	Moderate Bad widespread publicity Temporary suspension of Operations or prolonged restrictions Costs £100k - £1M
4	Major Multiple major injuries or single fatality	Major Major damage Costs £1M -£10M	Major Tier 3 criteria reached with pollution requiring national support. Chemical spillage or small gas release COMAH local evacuation Costs £1M - £10M	Major National publicity, Temporary closure Costs £1M -£10M

Cat	People	Property	Environment	Stakeholder
5	Catastrophic Multiple fatalities	Catastrophic Catastrophic damage Costs >£10M	Catastrophic Tier 3 oil spill criteria reached. International support required. Widespread shoreline contamination. Serious chemical or gas release. Significant threat to environmental amenity. COMAH major area evacuation Costs >£10M	Catastrophic International media publicity. Operations and revenue seriously disrupted for more than two days. Ensuing loss of revenue. Costs >£10M

Table 1-6 Risk Matrix.

FREQUENCY	Frequent	5	0	5.9	8.3	9.4	10
	Likely	4	0	3.5	5.9	7.4	8.3
	Possible	3	0	2.4	4.4	5.9	7
	Unlikely	2	0	1.8	3.5	4.9	5.9
	Remote	1	0	1.5	2.9	4.1	5.1
			1	2	3	4	5
			Negligible	Minor	Moderate	Serious	Major
CONSEQUENCE (IMPACT)							

Table 1-7 Risk Classification

Hazard Risk Score	Risk Definition	Action Taken
0 – 1.99	Negligible Risk	A level where operational safety is unaffected.
2 -3.99	Low risk	A level where operational safety is assumed.
4 – 5.99	As Low As Reasonably Practicable (ALARP)	A level defined by study at which risk control in place is reviewed. It should be kept under review in the ensuing SMS.
6 – 7.99	Significant Risk	A level where existing risk control is automatically reviewed, and suggestions made where additional risk controls could be applied if appropriate. Significant risk can occur in the average case or in individual categories. New risk controls identified should be introduced in a timescale of two years.
8-10	High Risk	A level requiring immediate mitigation.

1.6 Potential Significant Effects

1.6.1 The Proposed Development has the potential to impact marine navigation during the three outlined phases:

- **Phase 1:** Construction of the quay (and demolition of existing jetties) and dredging of the berth pocket and access channel;
- **Phase 2:** Marine operation during the construction of the LGF plant; and
- **Phase 3:** Marine operation during the operational phase of the facility.

1.6.2 Likely significant effects during the three outlined marine operation phases include the following navigation hazards:

- Collisions involving Proposed Development vessels and third-party vessels;
- Contact incidents involving Proposed Development vessels and third-party vessels;
- Grounding incidents involving Proposed Development vessels and third-party vessels; and
- Breakout incidents involving Proposed Development vessels and third-party vessels.

1.6.3 These will be assessed in the NRA in line with the legislation, policy and guidance.

1.7 Sensitive Receptors

1.7.1 The following sensitive receptors have been identified as they could be affected during the marine operation of the proposed scheme:

- Proposed Development vessels (including construction, dredging, AIL transportation and cargo vessels);

- Cargo vessels;
- Tankers;
- Passenger vessels;
- Recreational vessels;
- Tug and service vessels;
- Existing infrastructure (Navigator Terminals, Tees Dock);
- Vessel turning circle and navigation channel; and
- The LGF quay site.

1.8 Baseline Data Collection

1.8.1 Baseline navigational environmental data has been collected to inform this PEIR Chapter and to form the basis of the NRA.

1.8.2 This includes data regarding the following:

- Navigational features of the river Tees;
- Relevant policy, guidance and legislation pertinent to the management of navigational safety;
- PD Ports as Statutory Harbour Authority;
- Vessel traffic management (including Vessel Traffic Services (VTS), Pilotage, towage and Aids to Navigation (AtoN)); and
- Maritime incidents.

1.8.3 The following key data sources will be used to identify the baseline characteristics for the NRA and inform the ES:

- Accident and Incident data from:
 - the Statutory Harbour Authority;
 - the Marine Accident Investigation Branch (MAIB), and
 - the Royal National Lifeboat Institution (RNLI).
- Weather and environmental-based data;
- Automatic Identification System (AIS) data sourced from Made Smart for the period from October 2024 to September 2025.
- Vessel movement statistics from Statutory Harbour Authority; and
- Navigational features and charted information from United Kingdom Hydrographic Office (UKHO) Admiralty Charts.

1.9 NRA Study Area

1.9.1 The NRA study area is shown bounded in blue in **Inset 1-1**, the DCO boundary is depicted in red. Note, the extent of the NRA study area was discussed and approved by the Teesport Harbourmaster during a consultation meeting held on 3rd October 2025 as described in **Table 1-3**.

1.9.2 There are several adjacent terminals within the study area, these are highlighted and numbered in Inset 1-1 and named in Table 1-8.

Inset 1-1 NRA Study Area and Adjacent Terminals

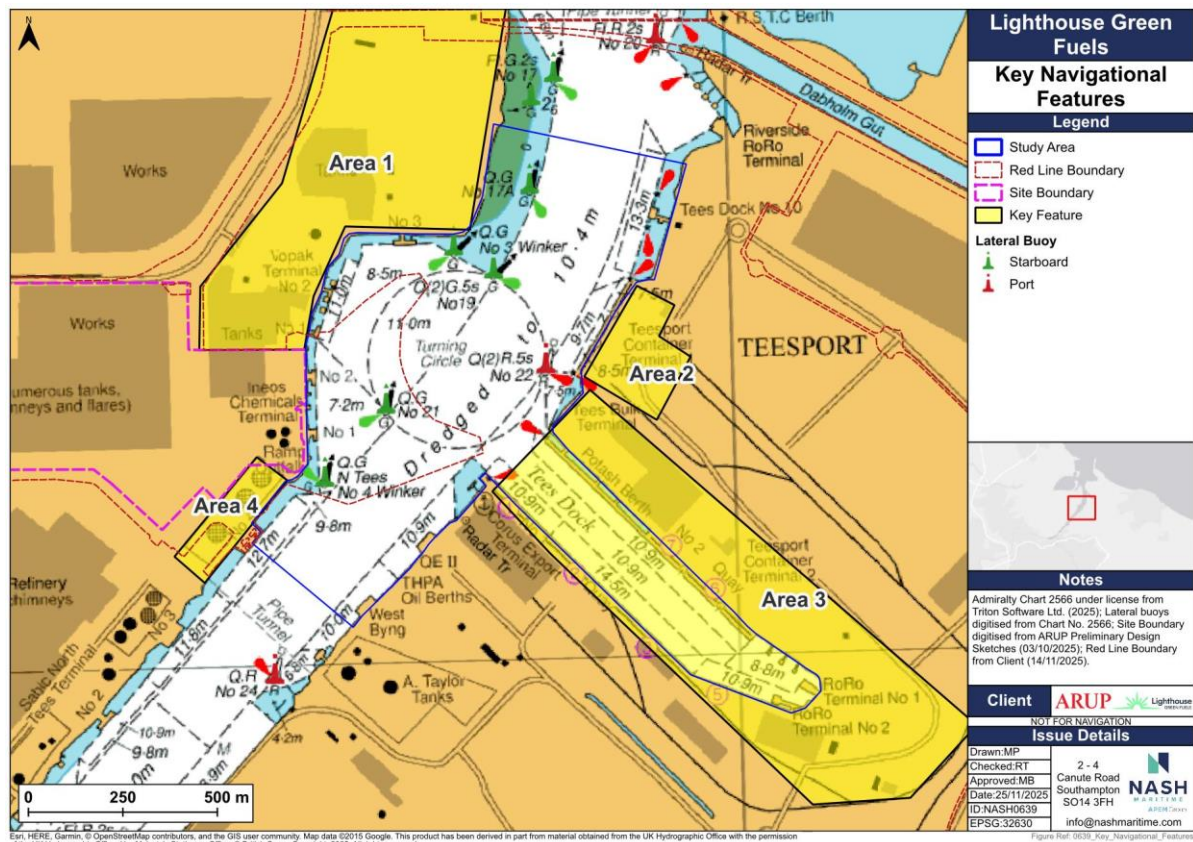


Table 1-8 Adjacent Terminals

Figure Label	Terminal	Description
1	Navigator Seal Sands Terminal	3 jetties
2	PD Ports Container Terminal 1 & 2	4 berths, 10 Rubber Tyred Gantry (RTG) cranes, and 5 ship-to-shore cranes
3	Tees Dock	Cleveland Potash Bulk Terminal (3 general cargo berths), PD Ports Roll-on/Roll-off (RO/RO) Berth (2 RO/RO berths) and Teesport Bulk Terminal (500m quay)
4	SABIC North Tees and Navigator North Tees Terminals	3 jetties in Sabic North Tees and 1 jetty (No.4) at Navigator North Tees

1.10 Baseline Conditions and Future Baseline

1.10.1 This section presents a high-level overview of the baseline and future baseline navigational environment within Teesport and includes:

- An overview of vessel traffic management within the NRA Study Area;

- A summary of the key baseline risk controls that enable the safe management of navigation;
- Spatial analysis of AIS data within the NRA Study Area by vessel types; and
- Analysis of historic incident data.

1.11 Management of Navigation

Statutory Harbour Authority (SHA)

- 1.11.1 PD Ports operates as the designated Statutory Harbour Authority (SHA) for the Port of Tees and Hartlepool, collectively known as Teesport. Their primary responsibility entails the oversight of a 12-mile (19.31km) segment of the River Tees, extending three miles (4.82km) into the North Sea. The NRA study area is entirely contained within the SHA area.
- 1.11.2 PD Ports oversees all vessel traffic management, ensuring safe navigation and maintaining channel depths for the vessels that visit Teesport. Its powers are predominantly derived under the Tees and Hartlepool Port Authority Act 1966, but it also exercises various other powers under other legislation applicable to all Harbour Authorities.
- 1.11.3 PD Ports is also the Competent Harbour Authority (CHA) for the purposes of pilotage within its jurisdiction.
- 1.11.4 Additionally, PD Ports fulfils the role of the Local Lighthouse Authority (LLA), assuming the responsibility for the provision and proper maintenance of aids to navigation as necessary and effective management of any danger to navigation from wrecks or obstructions, facilitating the safe passage of vessels.

Vessel Traffic Service

- 1.11.5 A VTS operates in the approaches to, and within the SHA area, of Teesport. The purpose of a VTS is to contribute to safety of life at sea, improve the safety and efficiency of navigation and support the protection of the environment within a VTS area by mitigating the development of unsafe navigation situations through:
 - Providing timely and relevant information on factors that may influence ship movements and assist on-board decision making;
 - Monitoring and managing ship traffic to ensure the safety and efficiency of ship movements; and
 - Responding to developing unsafe situations.
- 1.11.6 The PD Ports General Directions 2021 define VTS controlled vessels as any vessel over 20m in length and requires them to seek permission from

VTS before entry into the VTS area.

Pilotage

- 1.11.7 PD Ports is the Competent Harbour Authority (CHA) for the NRA study area with respect to pilotage. The requirements for pilotage are contained within the PD Ports Pilotage Directions 2025 (Ref 19). The areas where pilotage is mandatory in the Tees are:
- The navigable area of the Tees between the inner limit of the Seaton Turning Area and No.23 Buoy; and
 - The navigable area of the Tees between No.23 Buoy and the upper limit of PD Ports jurisdiction.
- 1.11.8 The Pilotage Directions also state that pilotage is compulsory for vessels navigating in the above areas when:
- The Length Overall (LOA) exceeds 95m; or
 - The summer deadweight exceeds 4,000 tonnes; or
 - The gross tonnage exceeds 4,000 tonnes; or
 - The LOA exceeds 20m and the cargo on board are dangerous goods or marine pollutants; or
 - The vessel is in excess of 50m LOA and requires the services of a tug; or
 - The vessel is less than 50m LOA and requires the services of a tug, where a risk assessment carried out by the Harbour Master and Tees Bay Pilots so dictates.

Baseline Risk Controls

- 1.11.9 Baseline risk controls are those that are currently utilised to manage navigation risk within the NRA study area. A full list of baseline risk controls is outlined in **Table 1-9**.

Table 1-9 Summary of baseline risk controls.

ID	Title	Control Type
1	Information on local recreational events and races	Education and Training
2	Event Planning	Education and Training
3	Racing Rules	Education and Training
4	Fixed life-saving appliances, Rescue Services and Search and Rescue (SAR) provision	Emergency Services
5	Notices to Mariners	Local Regulations
6	Local Regulations – Act, Byelaws, General Directions (GDs)	Local Regulations

ID	Title	Control Type
7	Routine harbour patrols	Local Regulations
8	Enforcement policy and suitable enforcement action when appropriate	Local Regulations
10	Under keel clearance requirements / regulations	Local Regulations
11	Towage guidelines	Local Regulations
12	Port weather limits	Local Regulations
13	Vessel manoeuvring weather limits	Local Regulations
14	Restricted visibility restrictions on movements	Local Regulations
15	Licensing of tugs and Foyboatmen	Local Regulations
16	National regulations and legislation	National Regulations
17	Tug masters training and certification	National Regulations
18	Navigational aids – appropriate and regularly checked	Nav aids
19	Tide gauges, meteorological monitoring and wave rider buoys	Nav aids
20	Pilots and Pilotage Exemption Certificates (PEC)	Pilotage
21	Pilot and PEC training, examination and revalidation	Pilotage
22	PD Teesport Pilotage Plan	Pilotage
23	Portable Pilotage Units	Pilotage
24	Project cargoes individual passage plans and Risk Assessment	Procedure
25	Special movement risk assessments, planning and briefings	Procedure
26	Dry-Docks Operations procedures	Procedure
27	Passage Planning Information	Procedure
28	Teesport Emergency Plans including COMAH	Procedure
29	Teesport Pollution control plans, equipment and procedures	Procedure
30	Routine stakeholder and public meetings	Procedure
31	Traffic control procedures for Teesport and Hartlepool	Procedure
32	Traffic Control Regulations October 2002	Procedure
33	EA flood alerts / tidal surge warnings	Procedure

ID	Title	Control Type
34	Tugs available 24/7	Procedure

- 1.11.10 The Tees and Hartlepool Harbour Byelaws (Ref 8) and General Directions (GDs) for Safety of Navigation, Persons and Property in the Harbour (Ref 9) provide regulatory guidance as to how navigation should function within Teesport. Key clauses that are of relevance to the NRA are outlined in the remainder of this section.

The Tees and Hartlepool Harbour Byelaws

- 29. *Except with the express permission of the harbour master:*
 - 1) *the master of a vessel not under way shall cause his vessel to be securely moored or made fast in such a position as to be clear of the navigable channels; and*
 - 2) *the master of a vessel shall not cause his vessel to be made fast except to mooring points provided for the purpose or to another vessel properly moored or made fast.*

General Direction for Safety of Navigation, Persons and Property in the Harbour

- 2.2 *Permission for Vessels to Navigate*
 - 2.2.1 *Except with the prior permission of the Harbour Master, the Master of a VTS (Vessel Traffic Survey) Controlled Vessel proposing to navigate in the Ports of Tees or Hartlepool, before entering the VTS Area, must obtain permission for the entry into the VTS Area from the Harbour Master when Passing Reporting Point Romeo. In giving such permission, the Harbour Master may specify a time different to that requested by the Master.*
 - 2.2.2 *Except with the prior permission of the Harbour Master, the Master of a VTS Controlled Vessel proposing to navigate (move or sail) in the VTS Area, before leaving the berth, must obtain permission for the movement from the Harbour Master.*
 - 2.2.3 *Permission given by the Harbour Master under General Direction 2.2.1 or 2.2.2 above will expire 15 minutes after the time for which it was given and, where the VTS Controlled Vessel has not started to navigate before such time, the Master must obtain further permission from the Harbour Master prior to commencing navigation.*
- 2.6 *Overtaking*

- *Except with the permission of the Harbour Master, overtaking manoeuvres for VTS Controlled Vessels are strictly prohibited within the Navigable Channels.*
- **2.7 Separation Distances**
 - *Except with the permission of the Harbour Master, the Master of a VTS Controlled Vessel must, as far as is reasonably practicable, maintain a separation distance of at least 2.5 cables (approximately 460 metres) from a VTS Controlled Vessel ahead, which is proceeding in the same direction.*
- **3.1 Notifying the Time of Arrival, Departure or Movement of Vessels:**
 - *3.1.1.3 If intending to move within or sail from the Tees, give the Harbour Master at least 2 hours' notice of the intention to do so.*
- **3.2 Moorings**
 - *3.2.1 The Master must at all times keep the Vessel properly berthed alongside any quay and must ensure that neither the vessel nor its moorings or gangway obstruct other Vessels or hamper use of the Harbour.*
- **4.4 Marine Operations**
 - *4.4.1 A Vessel engaged in loading, discharging or any other work where wash could create a risk to the operation, must ensure that a flag or rigid replica of the international Code of Signals Flags "RY" are displayed at all times.*
- **5.1 Restriction on Use of Recreational Vessels**
 - *No person may use any sailing boat, canoe, paddle boat or other recreation Vessel (whether or not such a vessel is powered) in the Harbour in a manner which may cause any danger, annoyance, nuisance or inconvenience to other Harbour users, or an injury to any person or damage to any property.*
- **5.2 Restriction on Other Recreational Activities**
 - *No person may engage in water-skiing, sail boarding, kite surfing, paddle boarding or any other activity involving movement in the Harbour otherwise than by the use of a Vessel in a manner which may cause any danger, annoyance, nuisance or inconvenience to other Harbour users, or any injury to any person or damage to any property.*
- **6.11 Special Directions**
 - *6.11.1 A Special Direction, pursuant to Article 5 of the Tees and Hartlepool Port Authority Revision Order 1974, may be given by the Harbour Master requiring any Vessel or Vessels in the Harbour to comply with a requirement made in or under a General Direction.*

- 6.11.2 A Special Direction may be given in any manner considered appropriate by the Harbour Master.

Vessel Traffic Overview

- 1.11.11 Analysis of Automatic Identification System (AIS) data (01 October 2024 to 30 September 2025) was undertaken to provide an overview of vessel traffic movements, by vessel type, within the NRA Study Area.
- 1.11.12 A total of 13,926 vessel transits were observed in the Study Area between October 2024 and September 2025. Up to 73% of the transits intersecting the NRA Study Area were workboats, serving Teesport commercial vessel terminals as well as terminals outside the NRA study area, such as Able Seaton Port and Norsea Oil Terminal.
- 1.11.13 Cargo vessels were the next most frequent vessel type, with 2,892 transits (21%) recorded. Tanker vessels made 921 transits (7%) and include the largest vessels by LOA (>250 m) to enter the NRA Study Area. Very few fishing or recreational vessels were recorded in the NRA Study Area, although these may be underrepresented due to smaller vessels not being required to carry an AIS receiver.
- 1.11.14 As shown in Inset 1-1, the NRA Study Area highlighted four key terminals or areas (coloured yellow) which are numbered 1, 2, 3 and 4 on the graphic.
- 1.11.15 The busiest port area was Area 3 (including Tees Dock) with 28% of transits (3,847) within the NRA Study Area – see **Table 1-10**. Within the reported period, there were 956 transits at the Area 2 including the Teesport Container and Bulk Terminals, and a combined 1,195 transits at Area 1 Navigator Terminals 1, 2, and 3 jetties.

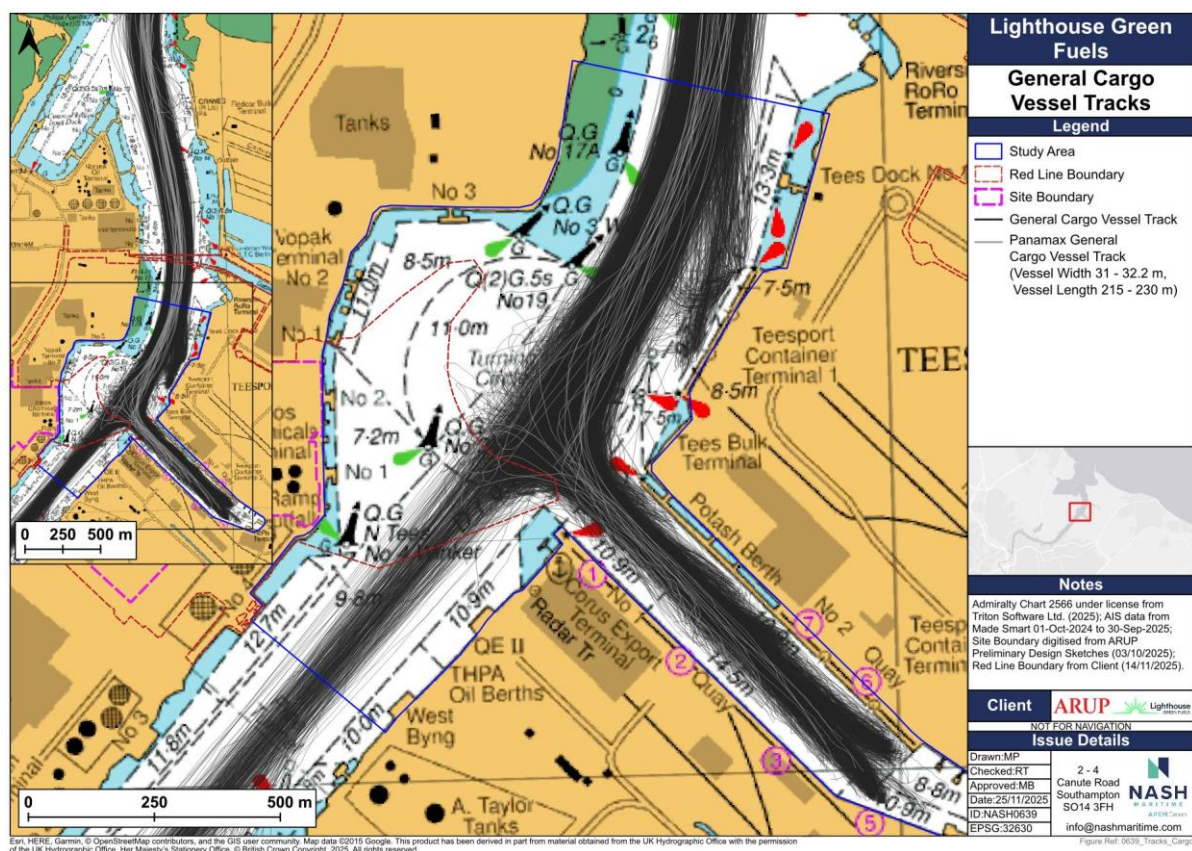
Table 1-10 Approximate count of vessel transits by type in the NRA Study Area and at each dock area during the one-year period.

Vessel Type	Study Area	Area 1 - Navigator Terminals			Area 2 – Container & Bulk Terminal	Area 3 – Tees Dock	Area 4 – Navigator Terminal 4
		1	2	3			
Fishing	6	-	-	-	-	-	-
General Cargo	2,892	-	-	-	339	2,188	-
Recreational	8	-	-	-	-	-	-
Tanker	921	-	279	250	-	14	126
Workboats	10,099	54	348	264	617	1,645	306
Total	13,926	54	627	514	956	3,847	432

General Cargo Vessels

- 1.11.16 A total of 2,892 general cargo vessel tracks were observed within the NRA Study Area. The most frequently utilised area was Area 3, with 2,188 transits (76% of general cargo traffic). Approximately 356 transits (12%) passed directly through the NRA Study Area remaining within the dredged channel, while 339 transits (12%) utilised the Teesport Container and Bulk Terminals in Area 2.
- 1.11.17 Over 79% (2,286 transits) of the general cargo vessel transits that intersected the NRA Study Area were made by vessels >100m LOA. General cargo vessels >200m LOA primarily utilised Area 3 or continued transiting upriver within the channel.
- 1.11.18 A subcategory of Panamax vessels was defined by vessel width (31 to 32.2 m) and LOA (215 to 230 m). Of the general cargo vessel transits within the NRA Study Area, 22 were identified to be from Panamax-sized vessels. Each of these utilised Tees Dock in Area 3 and the majority terminated at the 14.5m berth on Number 1 Quay.
- 1.11.19 Cargo vessel tracks are shown in **Inset 1-2**.

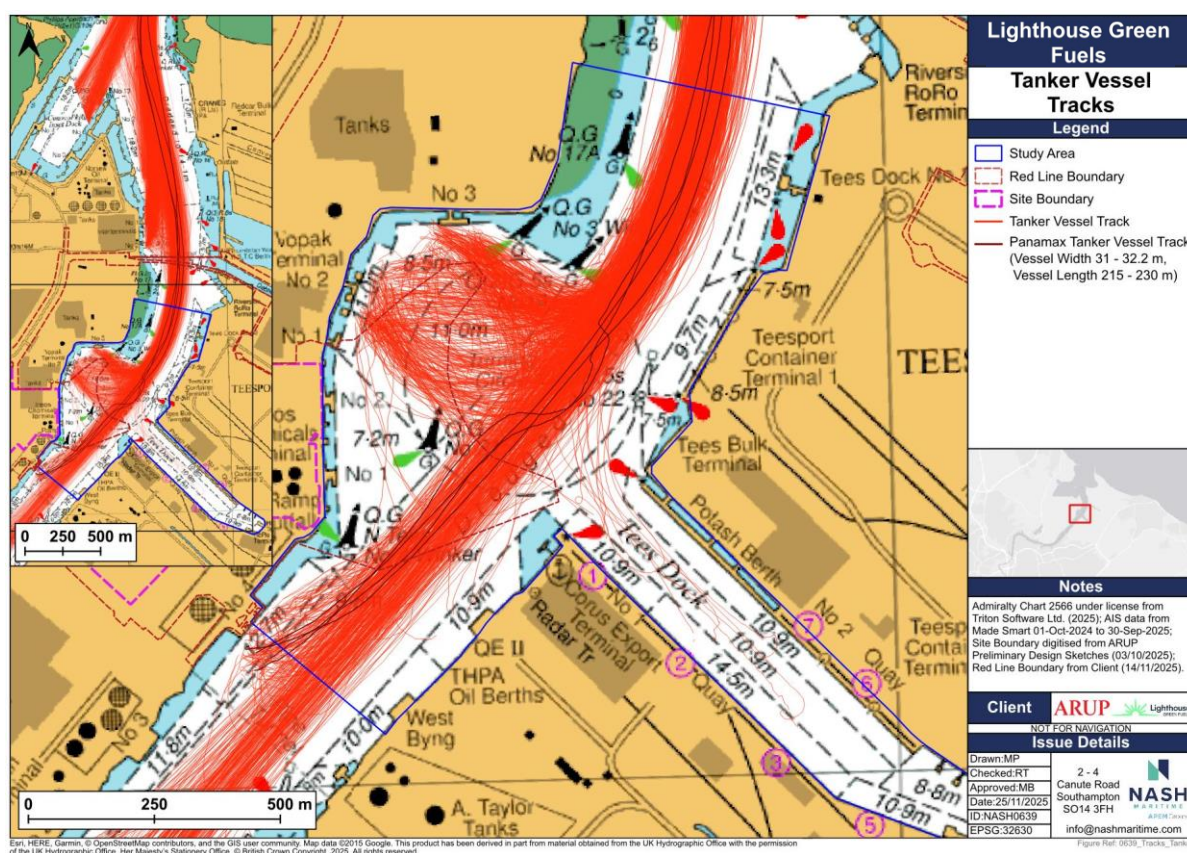
Inset 1-2 General Cargo Vessel Tracks.



Tanker Vessels

- 1.11.20 A total of 921 tanker vessel tracks were observed within the NRA Study Area. Of these, 529 transits (57%) were made to Area 1 while 245 transits (27%) passed directly through the NRA Study Area. Navigator Terminal Jetty No.4 in Area 4 was utilised less frequently with approximately 126 tanker vessel transits recorded (14%), and only 14 transits were recorded at Area 3.
- 1.11.21 Over 62% (575 transits) of tanker vessel transits within the Study Area were made by vessels >100m LOA, and overall, less than 3% (25 transits) were >200m LOA. These largest tanker vessels utilised the Navigator Terminal Jetty No.4 exclusively.
- 1.11.22 Utilising the same features as with general cargo vessels, a subcategory of Panamax vessels was defined for tanker vessels. Of the tanker vessel transits within the NRA Study Area, four were identified to be from Panamax-sized vessels. All four of these transits terminated at the Navigator Terminal Jetty No.4 in Area 4 (12.7m depth).
- 1.11.23 Tanker vessel tracks are shown in **Inset 1-3**.

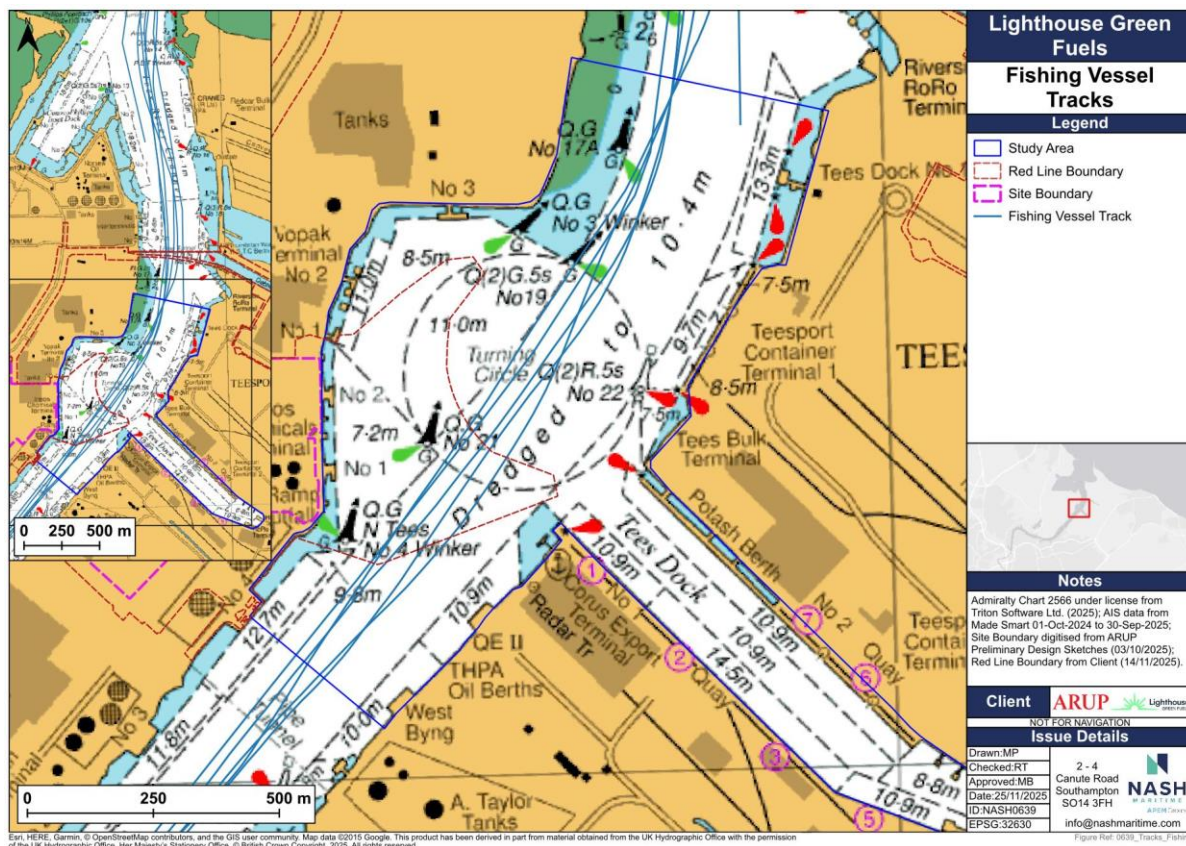
Inset 1-3 Tanker Vessel Tracks.



Fishing Vessels

- 1.11.24 A total of six fishing vessel transits were recorded passing through the Study Area. These were made by three unique vessels of 13m, 24m and 34m LOA and up to 6m in draught. Transits by fishing vessels are shown in **Inset 1-4**.
- 1.11.25 It must be noted that AIS is not mandatory for vessels of less than 15 m length and therefore fishing activities of vessels with a LOA less than 15 m may be underrepresented through the AIS data.

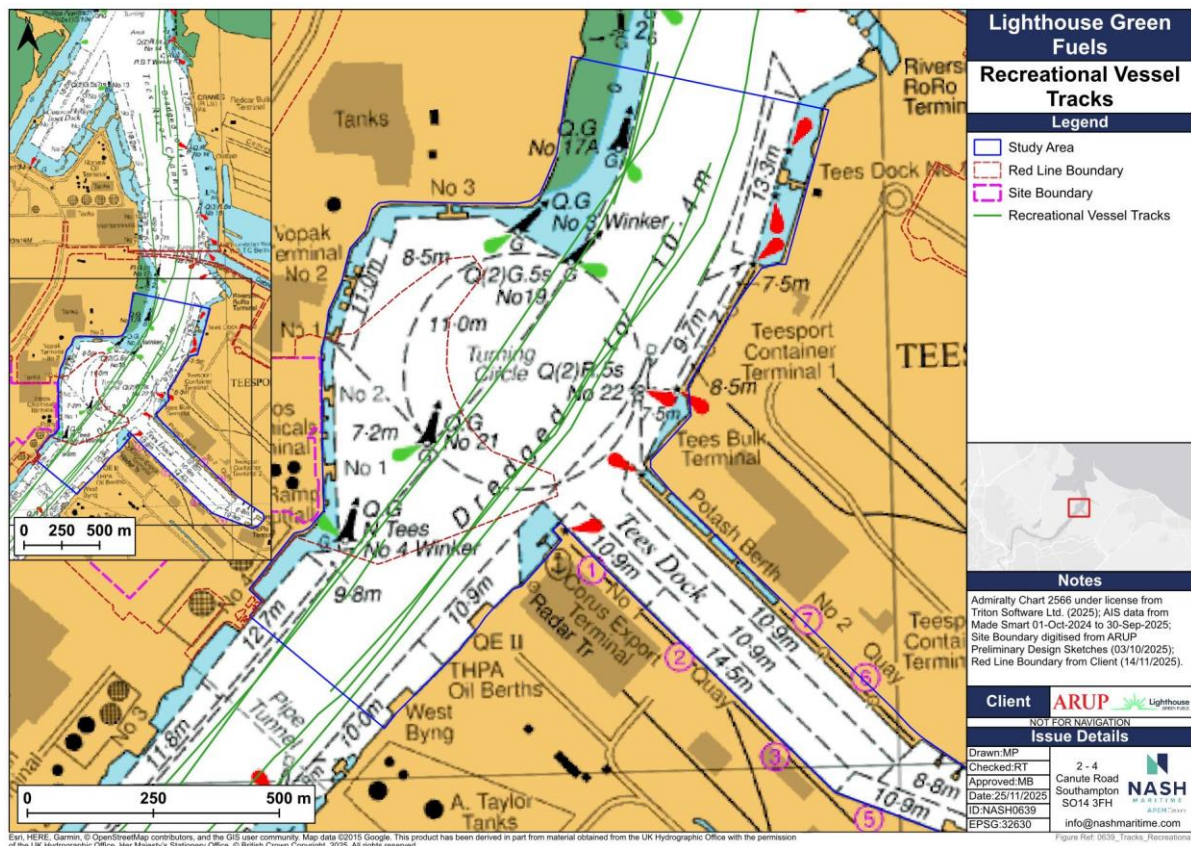
Inset 1-4 Fishing Vessel Tracks.



Recreational Vessels

- 1.11.26 There were a total of eight recreational vessel transits recorded on AIS transiting through the NRA Study Area. The transits were made by four unique vessels, all less than 12m in LOA. Generally, recreational vessels utilised the edges of the main channel.
- 1.11.27 As highlighted in section 1.11.13, smaller vessels, including unpowered and some powered recreational craft, are not obliged to carry AIS and therefore could be underrepresented in AIS vessel traffic analysis.
- 1.11.28 Recreational vessel tracks are shown in **Inset**.

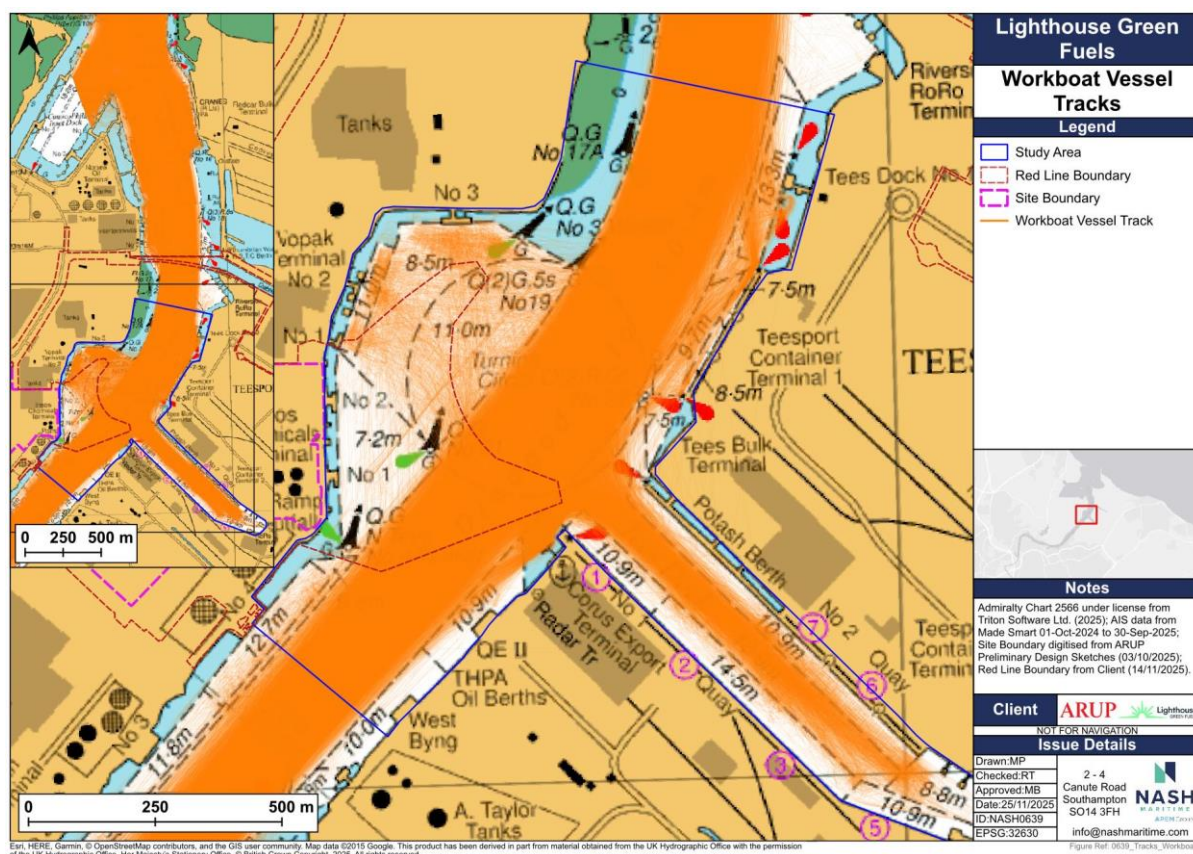
Inset 1-5 Recreational Vessel Tracks.



Workboats

- 1.11.29 Workboats made 10,099 transits within the NRA Study Area, of which 3,752 transits (37% of workboat transits) were located at the Teesport Bulks Terminal in Area 3. Workboats were recorded at every key location. Tugs operated by Svitzer and Boluda were primarily recorded transiting in the main channel, and at terminals in Areas 1 and 3. Additionally, some transits made by Svitzer-operated tugs were recorded at the Teesport Container and Bulk terminals, and the Navigator Terminal Jetty No.4 in Area 4.
- 1.11.30 Workboat vessel tracks are shown in **Inset 1-6**.

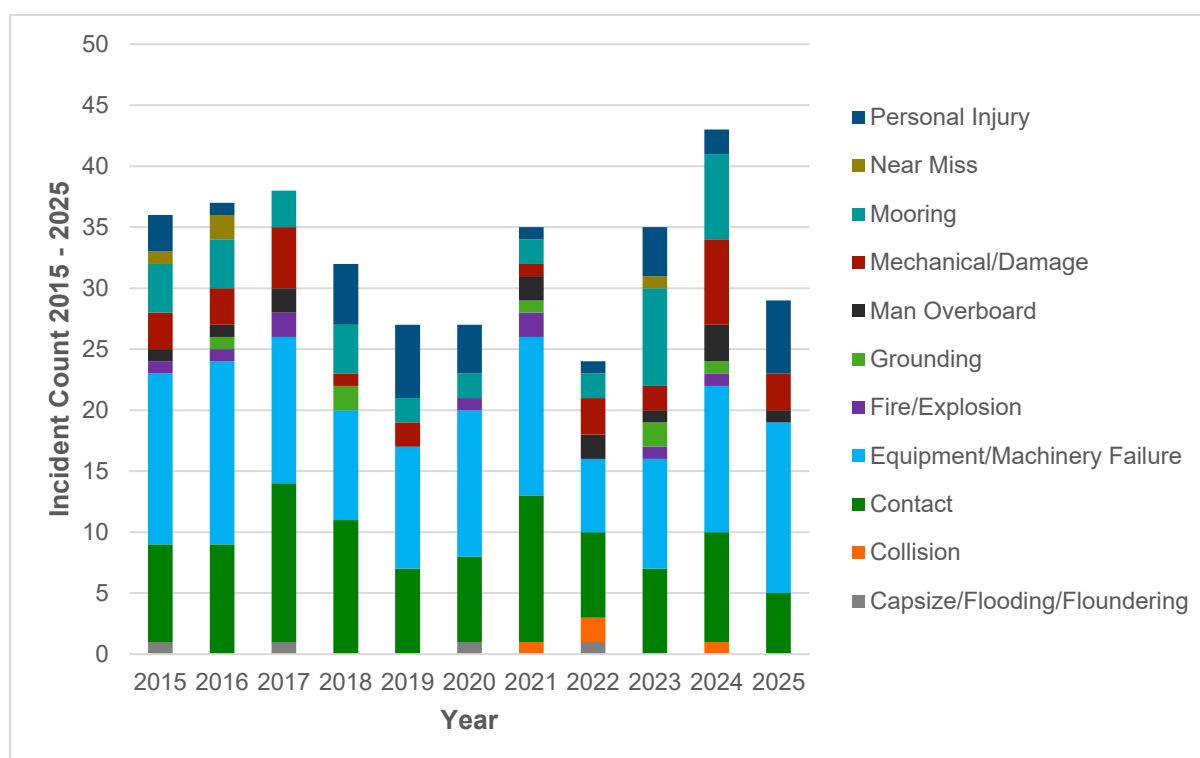
Inset 1-6 Workboat Vessel Tracks.



Incident Analysis

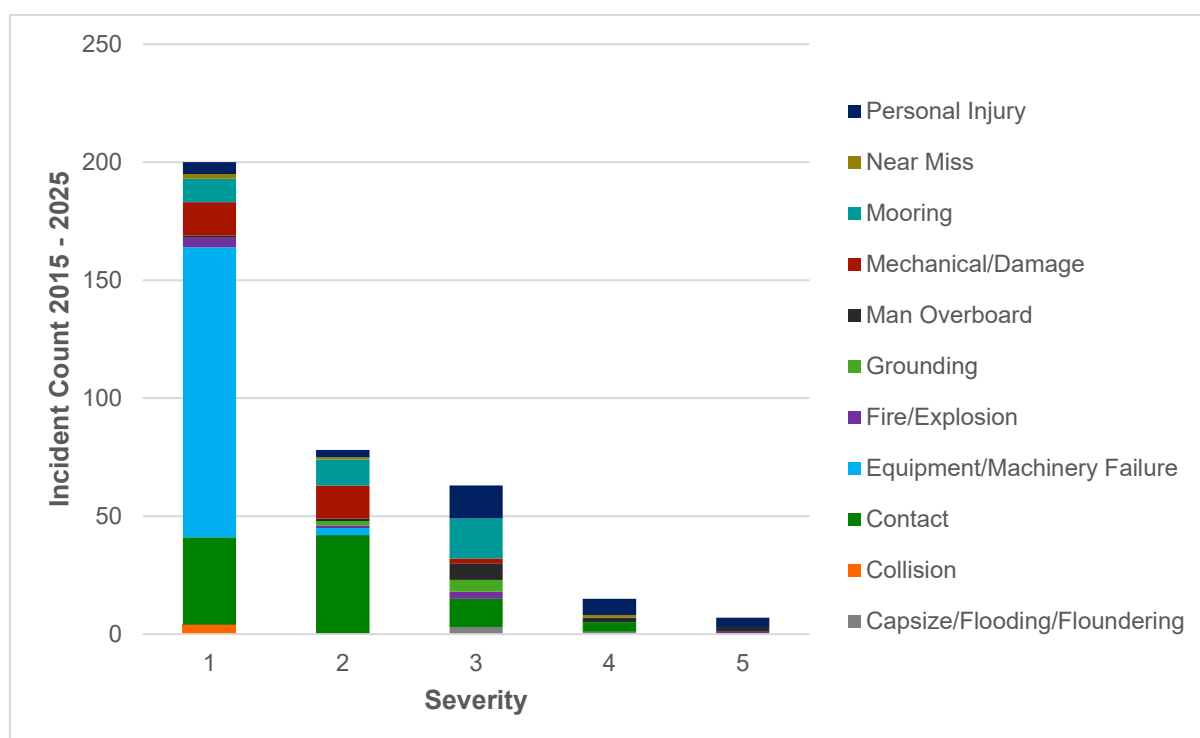
- 1.11.31 Analysis of historical incident data was undertaken to further understand the nature of commonly occurring hazards within Teesport. This in turn helps to further inform assumptions regarding hazard frequency and consequences.
- 1.11.32 PD Ports provided historical incident records for ten years between January 2015 and September 2025. The number of incidents, by type, that occurred during this time are shown in **Inset** .
- 1.11.33 The most common type of incident was equipment / machinery failure with 126 individual incidents, which equates to approximately 12 incidents per year. Contact incidents were the second most frequent type of incident with 95 occurrences in the ten-year period. Mooring incidents (such as parted lines) were the third most frequent with 38 reported incidents within the ten-year period. Where a collision, contact, or grounding resulted from a mooring incident, the incident type was counted as the former. Grounding and collision incidents were comparatively infrequent, each occurring less than once per year with seven and four reports respectively.

Inset 1-7 Incident count by types (2015- 2025)



- 1.11.34 PD Ports rank incident occurrences from zero to five in terms of severity, with the severity of incidents ranked as zero being negligible and the severity of incidents ranked as five being significant.
- 1.11.35 The number of incident types by severity are presented in **Inset 1-8**. All incidents were ranked a five or less in terms of severity. Most incidents were of negligible to low severity and predominantly consisted of contact and equipment failures. More severe, but far less frequent, incident types included man overboard and personal injuries.

Inset 1-8 Incident type and count by severity.



1.11.36 Supplementary incident data was sourced from the following sources:

- Marine Accident Investigation Branch (MAIB) incidents (2010-2024); and
- Royal National Lifeboat Institute (RNLI) callouts (2008-2024).

1.11.37 No relevant incidents were identified within RNLI callouts. The relevant recorded incidents from the MAIB data are summarised in **Table 1-11**.

Table 1-11 Relevant incidents within the NRA Study Area reported to the MAIB (2010 - 2024).

RNLI / MAIB	Date	Vessel Type	Description	Occurrence
MAIB	01/08/14	Cargo/tanker	Contact between manoeuvring cargo vessel and berthed oil tanker	Serious
MAIB	01/10/17	Tanker	Collision between two chemical tankers whilst in port	Less serious
MAIB	18/04/19	Cargo	Collision between bulk carrier in transit under pilotage and moored bulk carrier.	Serious
MAIB	01/12/20	Cargo	Engine failure – required tow	Less serious
MAIB	01/10/21	Tanker	Grounding while manoeuvring astern to berth	Less serious
MAIB	01/12/23	Tanker / Tug	Tug collided with its tow, and LPG tanker	Serious
MAIB	01/08/24	Cargo	Contact with quay while under pilotage and swinging near berth	Serious

Future Baseline

- 1.11.38 The future baseline environment has not yet been determined and further consultation with the Statutory Harbour Authority will inform the basis of the future baseline environment for the NRA.

1.12 Preliminary Assessment of Likely Impacts and Effects

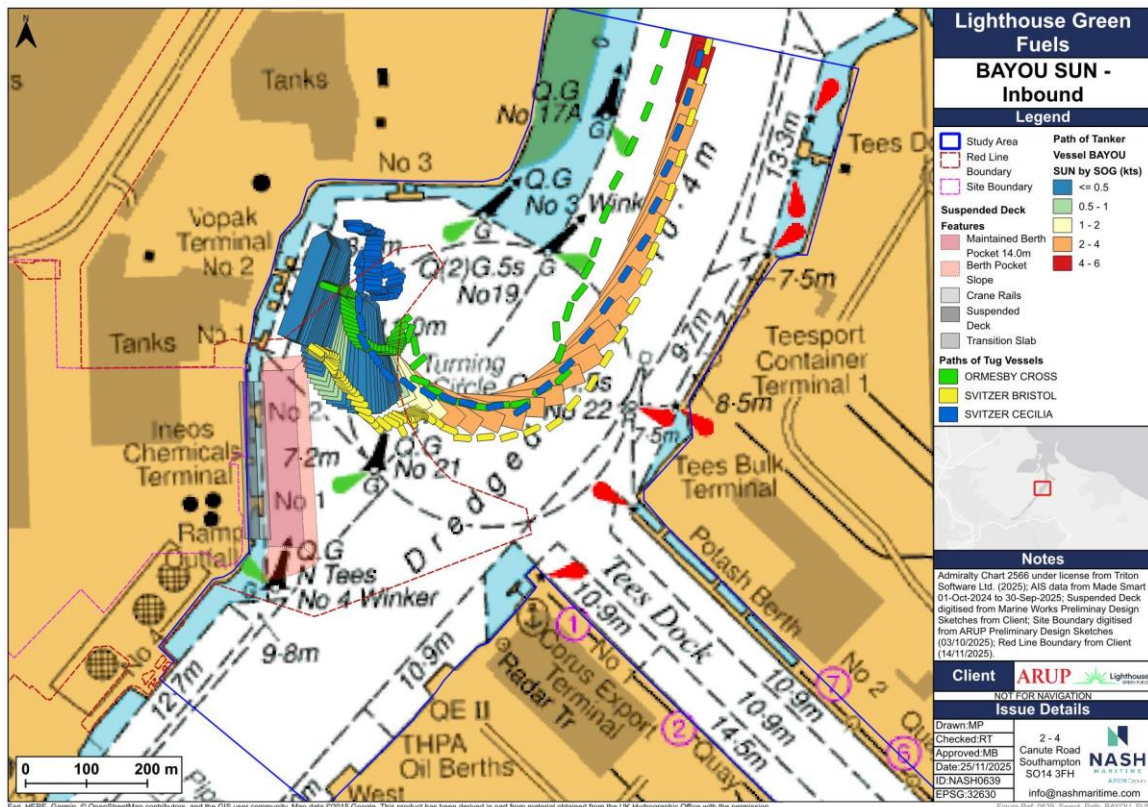
Phase 1: Construction of the quay (and demolition of existing jetties) and dredging of the berth pocket and access channel

- 1.12.1 The Proposed Development site has a river side frontage currently occupied by two jetties. This phase will involve the construction of a new quay. Prior to constructing the quay wall, the existing Jetty No 1 and 2 of the former INEOS site and other structures along the embankment would be demolished and any piles cut down or removed.
- 1.12.2 This operation is expected to rely on a combination of marine plant and landside plant. Marine plant is expected to include up to two jack-up barges with a crawler cranes. Flat top barges and tugs are expected to supply equipment and construction materials as well as to remove demolished materials during the works. A smaller general workboat is also assumed to support the operations. Final vessel types and number of transits will be confirmed in due course.
- 1.12.3 The existing gabion baskets on the face of the embankment would be removed by crane and the embankment slope regraded using long-reach excavators or similar for the upper slope and marine plant for the lower slope.
- 1.12.4 Capital dredging is required in the river Tees to facilitate ships using the quay. The proposal is to achieve a dredged pocket of -14m below Chart Datum (CD) in front of the quay approximately 280-300m long and 45-55 metres wide, which would allow vessels to remain moored at the quay at all states of the tide.
- 1.12.5 Backhoe Dredgers (BHD) are envisaged to be the primary dredging equipment for the dredging works, paired with Self-Propelled Hopper Barges (SPHB) to transport the material to the dump site. Final vessel types and number of transits will be confirmed in due course.
- 1.12.6 During this phase of the Proposed Development, there are three likely navigational impacts which are described below:

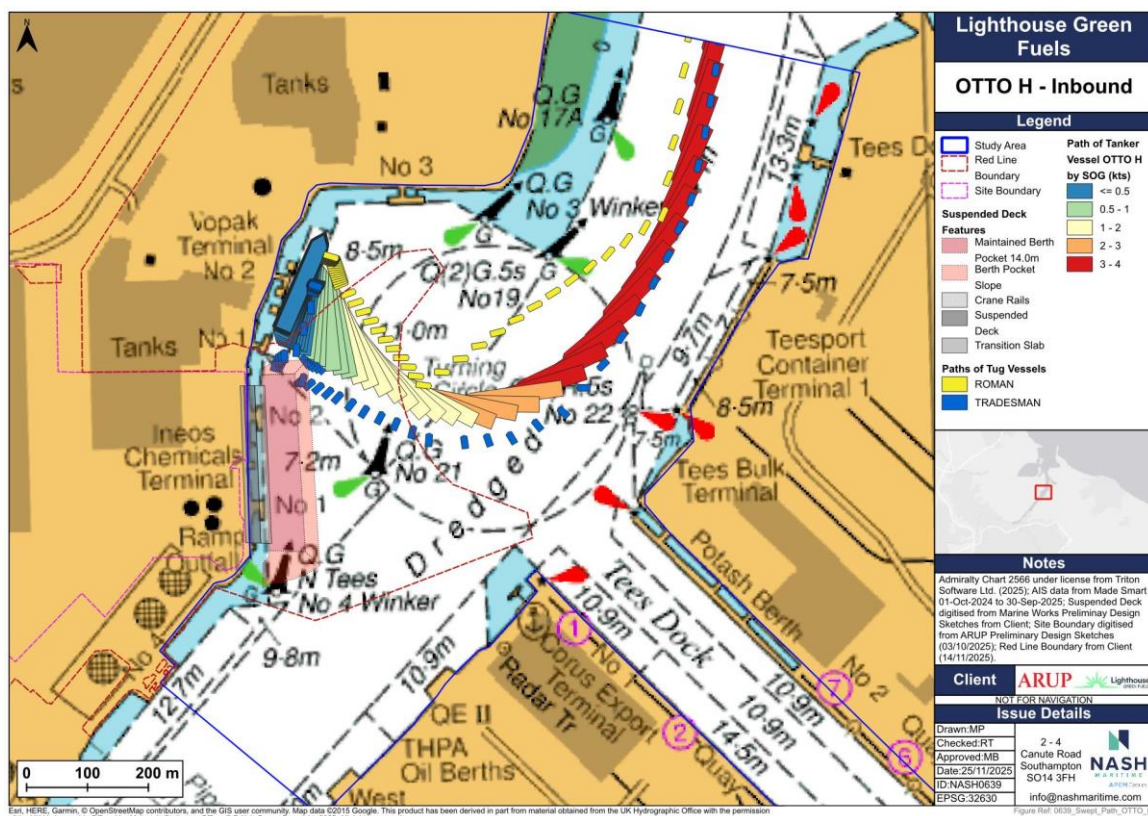
Interaction with vessels using Navigator Terminal No.2 Jetty

- 1.12.7 There are three Navigator Terminals situated to the north/north-east of the Proposed Development Site (Note: these are marked as Vopak Terminal on the Admiralty Chart Number 2566). No.1 Jetty lies closest to the Proposed Development although it would appear that this is no longer used for operations as no Tanker or Cargo vessel activity was identified as transiting to the jetty in the AIS data analysis, (see **Inset 1-2** and **Inset 1-3**).
- 1.12.8 Tanker vessels do, however, frequently arrive and depart Navigator Terminal No.2 Jetty. From 1st October 2024 to 30th September 2025 the largest tanker alongside No.2 Jetty was 186m LOA BAYOU SUN. As can be seen in
- 1.12.9
- 1.12.10 Inset 1-9 when mooring, this vessel came close to the dredged pocket area of the Proposed Development site. On a separate occasion, during the inbound arrival of a smaller tanker, the 167m LOA OTTO H, tugs assisting the vessel had some overlap with the dredged pocket area of the Proposed Development site (see **Inset 1-10**).

Inset 1-9 Inbound arrival of tanker vessel BAYOU SUN in relation to Proposed Development Site.



Inset 1-10 Inbound arrival of tanker vessel OTTO H in relation to Proposed Development Site .



- 1.12.11 Typically, these tankers will swing within the designated turning circle and, with tugs assisting, will moor port-side to the jetty. When the 169m tanker is moored, there is a gap of 48m to the Proposed Development site, which would decrease by a further 14m if the largest of vessels in the class were to be used.
- 1.12.12 During construction and dredging operations, there may be some encroachment from moored tankers to the Proposed Development site which may negatively impact the ability of vessels to manoeuvre. It is also possible that dredging and construction operations may need to cease whilst vessels manoeuvre alongside No.2 Jetty, especially when tug vessels are in attendance.
- 1.12.13 At present, the tug vessels utilise the space between the Proposed Development and Navigator No. 1 Jetty as it is available to them. The safety of this operation when there is a vessel moored alongside the Proposed Development site will be further assessed through consultation with towage operators and with master mariner input to the NRA.

Impact on existing buoyage / Aids to Navigation

- 1.12.14 The proximity of the starboard lateral Buoy No. 21 which lies on the edge of the Turning Circle is unlikely to impact marine operations during this Phase. However, Buoy No.4 'Winker', which lies to the southern end and within 15m of the Project Scheme site will inhibit dredging operations. Therefore, there is a risk of contact between a Project Scheme Vessel and AtoN No. 4. Further analysis using typical swept paths of likely project construction vessels and via consultation with stakeholders will help determine whether this is the case.

Impact on dredging from vessels mooring & unmooring from Jetty No.1

- 1.12.15 As discussed above, there has been very limited use of Navigator No.1 Jetty other than by workboats during the past year. However, should this jetty come back into operational use at the same time that construction and dredging activity for the project is taking place, project vessels will need to be mindful of the additional traffic in close proximity to construction and dredging operations.

Phase 2: Marine operation during the construction of the LGF plant

- 1.12.16 This phase will involve the delivery of AILs and other construction materials by either large bulk carrier vessels, potentially up to Panamax size, or large MC Class heavy lift vessels up to 173m LOA by 42m beam. The berthing

and departure operations of these vessels will present the following four navigational impacts:

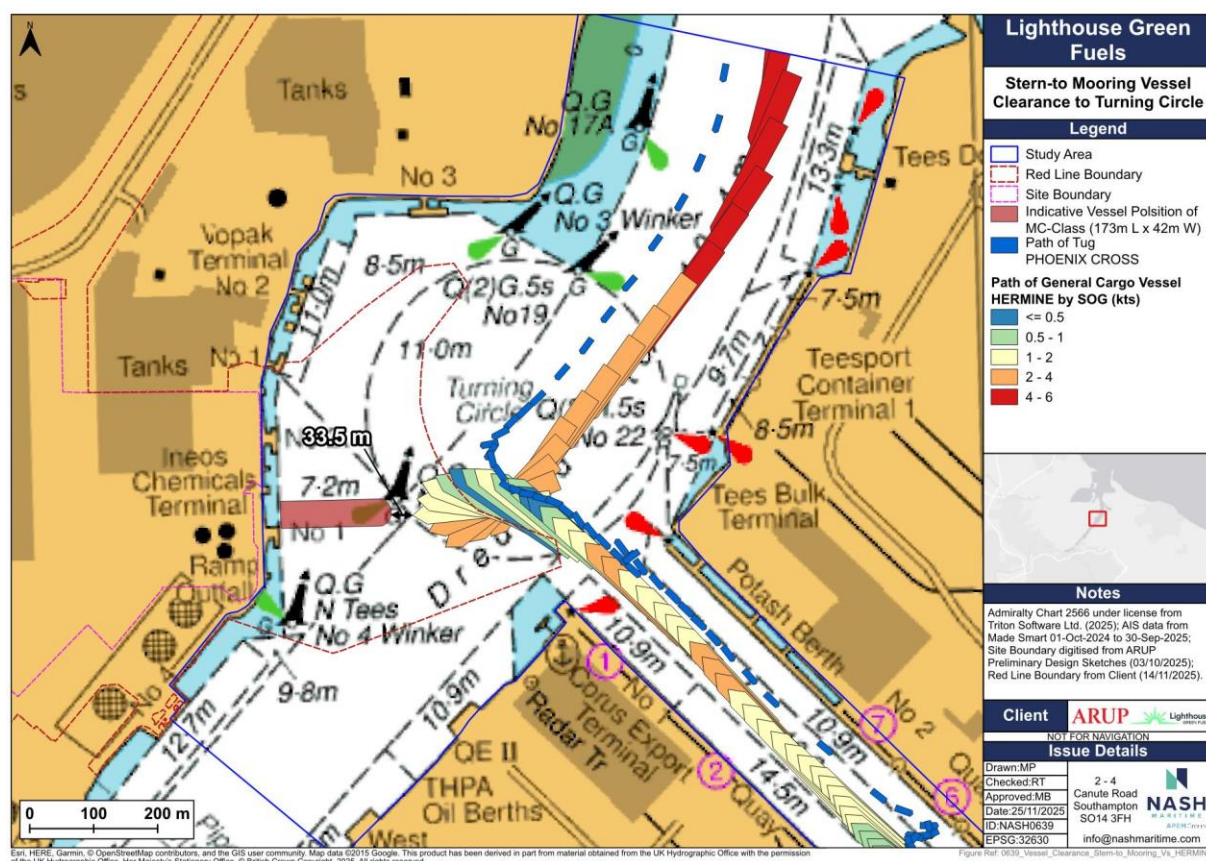
Encroachment of the Turning Circle

- 1.12.17 It is proposed that the MC Class heavy lift vessel retains the flexibility to moor alongside in a Lift on/Lift off (Lo-Lo) arrangement, as well as at 90 degrees to the quayside in a Mediterranean-moored position (i.e. stern to). When moored in this latter position, the MC Class of vessel is likely to create a navigational impact on vessels manoeuvring within the turning circle, as shown in **Inset 1-11**. This graphic demonstrates an indicative clearance of 33.5m to the bow of a general cargo vessel when the moored position of the MC Class vessel is situated approximately halfway along the quayside.
- 1.12.18 When moored in the same Mediterranean mooring alignment but further to the north along the new proposed quayside, the tolerance for clearance between moored and manoeuvring vessels within the turning circle is reduced further, thereby increasing the risk of vessel collisions.

Encroachment of the Authorised Channel

- 1.12.19 A Mediterranean mooring type arrangement at the southern end of the Project Berth will also potentially impact upon turning operations of vessels reversing into Tees Dock. This will potentially increase the risk of vessel collision and will increase the risk of contact with the port marker buoy No.21.

Inset 1-11 Indicative clearance dimension when stern to mooring is utilised



Congestion over high water period

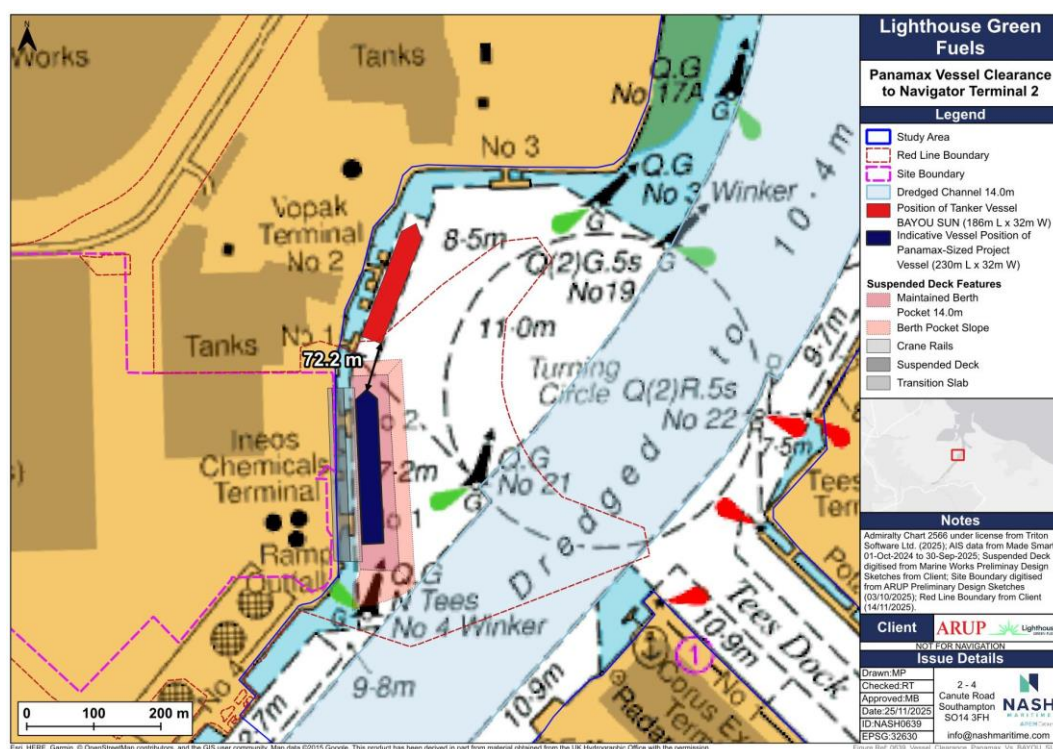
- 1.12.20 The sizeable draft of cargo and tanker vessels (>10m) arriving into the port is likely to require passage to be made close to high water to provide sufficient under keel clearance and to reduce the likelihood of grounding. The impact that this may have is that it may put pressure on port resources in terms of availability of tugs, pilots and other qualified personnel required for operations within a short window either side of high tide. This will be further analysed within the NRA to understand the impact it may have on Project Vessels during this stage of the Project.

Overhang between Project Berth and Navigator Terminal No. 2 Jetty

- 1.12.21 The berth pocket of the Proposed Development Site extends to 290m in length and over 50m in width, which should easily accommodate a Panamax vessel of around 230m LOA when delivering construction materials to the plant. If an 186m LOA tanker is moored on the Navigator Terminal No. 2 Jetty, there is a gap of 72.2m between the two vessels and the space in which tugs in assistance would utilise (see **Inset 1-12**). Whilst there is sufficient room for vessels to moor in benign conditions, there could

be challenges in adverse weather conditions. It is recommended therefore that detailed berth plans are produced and promulgated.

Inset 1-12 Panamax Vessel Clearance to Navigation Terminal No.2 Jetty



Phase 3: Marine operation during the operational phase of the facility

- 1.12.22 The Phase will comprise the delivery and offloading of the dry bulk imports at the Proposed Development site. Dry bulk will include pelletised and non-pelletised feedstock for the SAF production and the combined heat and power (CHP) operations.
- 1.12.23 Dry bulk imports to the berth are likely to be handled by handy-sized bulk carriers for UK sourced products. Overseas-sourced products are envisaged to be handled by Panamax-sized bulk carriers.
- 1.12.24 On the assumption that there is to be only one Project Vessel making an approach to the Project Berth or leaving the Project Berth at any one time, there are no further navigational impacts within this phase which have not already been covered in section 1.12 above.

1.13 Decommissioning

- 1.13.1 Decommissioning of the Proposed Development is not anticipated until at least 30 years after commissioning. It is not considered appropriate to outline decommissioning operations at this time due to the extent of

unknown factors related to the future marine baseline and technical requirements for decommissioning. For these reasons, it is deemed more appropriate to create a decommissioning plan at the point of decommissioning, following best practices of the time. Therefore, decommissioning has been scoped out from review. A Decommissioning Plan would be prepared at an appropriate time.

1.14 Additional Design Mitigation and Enhancement Measures

- 1.14.1 Additional design, mitigation and enhancement measures will be identified as part of the NRA and presented as part of the ES.

1.15 Monitoring

- 1.15.1 Monitoring may include the following methods and techniques:
- VTS Channels Marine-band VHF radio frequencies are a source of live updates and information for users of the river. They provide a means for vessel crew to communicate with other vessels and shore station (e.g. ports, locks, bridges and marinas) on operational, navigation and safety matters. Listening to the appropriate radio channel will provide a picture of vessel traffic, which is important for operational safety;
 - AIS systems can be used to monitor the location, heading and other details of vessels on the river;
 - AIS tracks can be recorded and collated to produce a range of swept paths, which can be analysed to show longer term vessel movements in an area. This analysis can be used to show routes and transit frequencies for different vessel classes and, from an individual vessel though to all vessels over a certain time; and
 - Numbers of non-AIS equipped vessels such as recreational and leisure craft, used by more casual river users such as rowing clubs may be captured using CCTV positioned on or around the jetty. In addition, consultation with such groups can ascertain their weekly or monthly activities in the area.

1.16 Residual Effects

- 1.16.1 Residual effects will be identified as part of the NRA and will be presented as part of the ES.

1.17 Next Steps

- 1.17.1 Based on the likely navigational impacts of this report, the assessment next steps will include a qualitative assessment informed by a NRA which will

inform the design development and reporting in a Marine Navigation ES Chapter, as required by the Statutory Harbour Authority.

References

- Ref 1 National Policy Statement for Ports (2012) – Available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/3931/national-policy-statement-ports.pdf
- (2025 Consultation Draft) – Further information available at:
<https://www.gov.uk/government/consultations/proposed-amendments-to-the-existing-national-policy-statement-for-ports/draft-national-policy-statement-for-ports-consultation>
- Ref 2 Overarching National Policy Statement for energy (EN-1) (2024)- available at <https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1>
- Ref 3 National Policy Statement for renewable energy infrastructure (EN-3) (2024) – available at <https://www.gov.uk/government/publications/deleted-national-policy-statement-for-renewable-energy-infrastructure-en-3>
- Ref 4 UK Marine Policy Statement(2020) – available at <https://www.gov.uk/government/publications/uk-marine-policy-statement>
- Ref 5 North East Marine Plans(2016) – available at <https://www.gov.uk/government/collections/north-east-marine-plan>
- Ref 6 Department for Transport (DfT) Ports and Marine Facilities Safety Code (PMSC) (2025) - Available at:
<https://assets.publishing.service.gov.uk/media/67fd175bed87b81608546666/port-marine-safety-code.pdf>
- Ref 7 Teesport Marine Safety Plan 2024 to 2026 - Available at:
<https://www.pdports.co.uk/wp-content/uploads/2024/06/Marine-Safety-Plan-2024-2026.pdf>
- Ref 8 <https://www.pdports.co.uk/documents/navigational-information/regulations/byelws.pdf>The Tees and Hartlepool Harbour Byelaws 1977 & 1985 (PD Ports, 1985) - Available at:
<https://www.pdports.co.uk/documents/navigational%20information/regulations/byelws.pdf>
- Ref 9 General Directions for Safety of Navigation, Persons and Property in the Harbour (PD Teesport) (PD Teesport, 2021) – Available at:

- <https://www.pdports.co.uk/wp-content/uploads/2024/06/General-Directions-final-version-15.01.20-1.pdf>
- Ref 10 Harbours, Docks & Piers Clauses Act 1847 (UK Parliament, 1847). Available at: <https://www.legislation.gov.uk/ukpga/Vict/10-11/27/contents>
- Ref 11 Tees and Hartlepool Port Authority Act 1966 (UK Parliament, 1966). Available at: <https://www.legislation.gov.uk/ukla/1966/25/contents/enacted>
- Ref 12 Tees and Hartlepool Port Authority Act 1982 (UK Parliament, 1982). Available at: <https://www.legislation.gov.uk/ukla/1982/13/contents/enacted>
- Ref 13 Ports and Marine Facilities Safety Code – “Guide to Good Practice on Port Marine Operations” (DfT, 2025) - Available at: <https://www.gov.uk/government/publications/a-guide-to-good-practice-on-port-marine-operations/a-guide-to-good-practice-on-port-and-marine-facilities>
- Ref 14 River Tees Passage Plan (PD Teesport, 2024b) - Available at: <https://www.pdports.co.uk/wp-content/uploads/2024/10/River-Tees-Passage-Plan-v5-1.pdf>
- Ref 15 Notice to Mariners – PD Ports (PD Teesport, n.d.) - Available at: <https://www.pdports.co.uk/marine-information/notice-to-mariners/>
- Ref 16 International Maritime Organisation (IMO), Revised Guidelines for Formal Safety Assessment 2018 (IMO 2018) - Available at: [https://wwwcdn.imo.org/localresources/en/OurWork/HumanElement/Documents/MSC-MEPC.2-Circ.12-Rev.2%20-%20Revised%20Guidelines%20For%20Formal%20Safety%20Assessment%20\(Fsa\)For%20Use%20In%20The%20Imo%20Rule-Making%20Proces...%20\(Secretariat\).pdf](https://wwwcdn.imo.org/localresources/en/OurWork/HumanElement/Documents/MSC-MEPC.2-Circ.12-Rev.2%20-%20Revised%20Guidelines%20For%20Formal%20Safety%20Assessment%20(Fsa)For%20Use%20In%20The%20Imo%20Rule-Making%20Proces...%20(Secretariat).pdf)
- Ref 17 PD Teesport Limited / Harbour Master Tees and Hartlepool Navigational Risk Assessment Review, Marico Marine (22UK1888) 16 December 2022.
- Ref 18 Marine Guidance Note (MGN) 654 Offshore Renewable Energy Installations (OREI) – Guidance on UK Navigational Practice, Safety and Emergency Response (2021). Available at: <https://www.gov.uk/government/publications/mgn-654-mf-offshore-renewable-energy-installations-orei-safety-response>
- Ref 19 PD Port Pilotage Direction (2025)- Available at <https://www.pdports.co.uk/wp-content/uploads/2025/10/Pilotage-Direction-2025.pdf>



www.lighthousegreenfuels.co.uk

