The Great Grid Upgrade

Sea Link

# Sea Link

**Volume 9: Examination Submissions**

**Document 9.12: Outline Navigation and Installation Plan**

**Planning Inspectorate Reference: EN020026**

**Version: B**
**February 2026**

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|---|---|---|---|
| **Date** | **Version** | **Status** | **Description / Changes** |
| March 2025 | A | Final | For DCO Submission |
| February 2026 | B | Final | Issued to PINS Deadline 4 |

# Acronyms

| Acronym | Meaning |
|---|---|
| AOI | Area of Interest |
| CD | Chart Datum |
| CEMP | Construction Environmental Management Plan |
| COLREGs | Convention on the International Regulations for Preventing Collisions at Sea |
| DCO | Development Consent Order |
| EMF | Electro Magnetic Field |
| ES | Environmental Statement |
| FSA | Formal Safety Assessment |
| HHA | Harwich Haven Authority |
| HVDC | High Voltage Direct Current |
| IMO | International Maritime Organisation |
| MCA | Maritime and Coastguard Agency |
| MGN | Marine Guidance Note |
| MMO | Marine Management Organisation |
| NM | Nautical Mile |
| NRA | Navigational Risk Assessment |
| NIP | Navigation and Installation Plan |
| PEIR | Preliminary Environmental Information Report |
| PLA | Port of London Authority |
| RAM | Restricted in Ability in Manoeuvre |
| SOLAS | International Convention for the Safety of Life at Sea |
| SWB | Shallow Water Barge |

| Acronym | Meaning |
|---|---|
| TDOL | Target Depth of Lowering |
| TSS | Traffic Separation Scheme |
| UKC | Under Keel Clearance |
| UK CoS | United Kingdom Chamber of Shipping |
| UKHO | United Kingdom Hydrographic Office |
| UXO | Unexploded Ordnance |
| VTS | Vessel Traffic Service |

# 1. Introduction

## 1.1 Purpose of NIP

1.1.1 This Outline Navigation and Installation Plan (NIP) has been prepared to provide a mechanism for managing project vessel traffic during the construction and operational phase of the Sea Link project, and communicating relevant information to key shipping and navigation stakeholders.

1.1.2 During consultation, the need for a plan to manage vessels and maintain communication with stakeholders during the construction and operational and maintenance phases was highlighted. The production of an NIP has been recommended by the Sea Link Navigational Risk Assessment **(Application Document 6.3.4.7.A ES Appendix 4.7.A Navigational Risk Assessment [APP-203])** as a mitigation measure in order to manage and reduce potential shipping and navigation impacts, including vessel collision risk, disruption to established routes and areas, reductions in water depth, and reduced access to ports and harbours.

1.1.3 This NIP will maintain ongoing awareness of Sea Link offshore installation activities amongst relevant parties, set out planned protocols, and enable coordination with stakeholders as required. Details of expected maintenance fleet activities during the operation and maintenance phase are included.

1.1.4 As recommended by the Sea Link NRA, the NIP will pay particular attention to:

- The installation activities through the Sunk TSS;
- Planned operations within Pegwell Bay;
- Any expected or unexpected change in under-keel clearance or anticipated introduction of seabed hazards; and
- Where necessary will identify areas of high potential magnetic compass deviation.

1.1.5 The NIP has a key focus on:

- Concurrent Restricted in their Ability to Manoeuvre (RAM) project vessel activities with other offshore projects within the Sunk region;
- Pilotage and anchorage at key locations; and
- Preserving access to approaches to ports and harbours (including Harwich Haven and Port of London) by safeguarding water depth in order to maintain under-keel clearances.

1.1.6 The spatial and temporal scope of this NIP is defined in the following Section 1.2.

## 1.2 Scope of NIP

### Geographic Scope

1.2.1 This Navigation Installation Plan is specifically focussed on the following five Areas of Interest (AOI):

- East of North Shipwash AOI - East of the North Shipwash buoy;
- Three Developments AOI – Sunk region;
- IMO Routeing Measures AOI – Sunk TSS additional areas;
- Princes Channel Approaches AOI – NE Spit/Southern approaches; and
- Kent Landfall AOI – Pegwell Bay.

1.2.2 The five AOI are displayed in Plate 1.1.

1.2.3 For the avoidance of doubt, project activities outside of these five AOI are outside the scope of this NIP. Similarly, for the avoidance of doubt, these five Sea Link NIP AIO are different to the three Sea Link Areas of Safeguarded Water Depth which are identified within the Outline Cable Specification and Installation Plan (**Application Document 9.92 Outline Cable Specification and Installation Plan**, submitted at Deadline 4).

### East of North Shipwash AOI

1.2.4 The East of North Shipwash AOI has been added to the NIP in response to a request from the Maritime and Coastguard Agency (MCA) in January 2026.

1.2.5 This AOI covers a route of traffic which represents the northern route to and from Harwich Haven.

1.2.6 The East of North Shipwash AOI is defined by the coordinates in Table 1.1.

## Table 1.1 North of East Shipwash AOI Coordinates (WGS84)

| Point | Latitude | Longitude |
|---|---|---|
| 1 | 52° 01' 08.03" N | 001° 38' 14.89" E |
| 2 | 52° 03' 31.28" N | 001° 38' 14.26" E |
| 3 | 52° 03' 32.50" N | 001° 40' 27.07" E |
| 4 | 52° 01' 08.59" N | 001° 40' 29.30" E |
| 5 | 52° 01' 08.03" N | 001° 38' 14.89" E |

### Three Developments AOI

1.2.7 The Three Developments AOI aligns with the Area of Interest established in the Five Estuaries and North Falls NIP documents (Five Estuaries Offshore Wind Farm, 2025) (North Falls Offshore Wind Farm, 2025), at the request of the Port of London Authority (PLA).

1.2.8 The Three Developments AOI is defined by the four coordinates shown in Table 1.2.

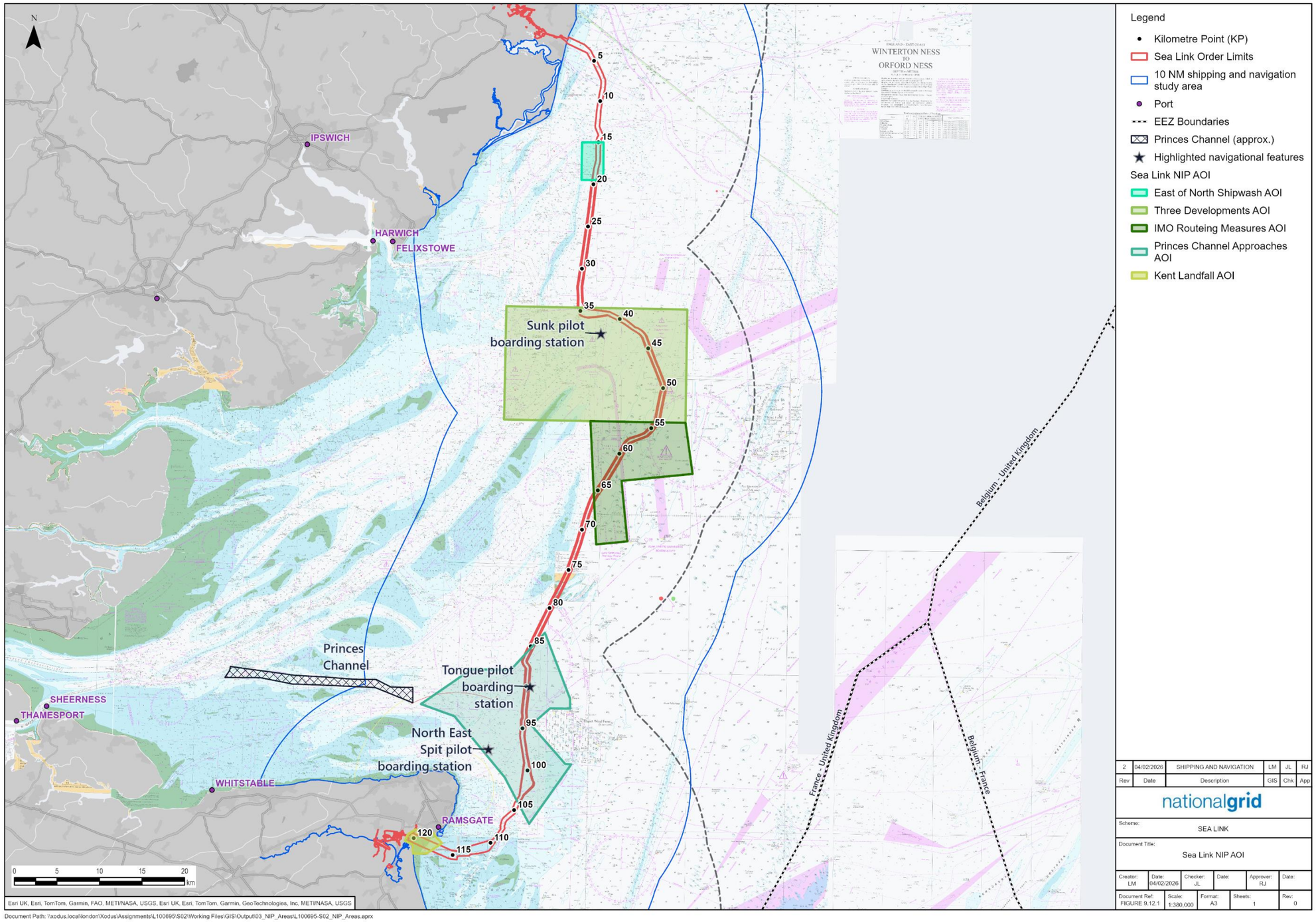
1.2.9 The Three Developments AOI encompasses the Sunk region. The Sunk coincides with an area of intense shipping vessel activity at the mouth of the Thames Estuary, which is managed by the implementation of International Maritime Organisation (IMO) Routeing Measures, including a number of Traffic Separation Schemes (TSS). The TSS order manage vessel approaches to the Thames Estuary. Due to the level of shipping activity

within this region as well as its navigational importance, the Sunk region has been identified through discussion with stakeholders as being an area of focus for this NIP, and therefore the Three Developments AOI has been established.

1.2.10 The Sunk Vessel Traffic Service (VTS), operated by the Dover Coastguard, monitors this region. The Sunk VTS covers the two Sunk Precautionary Areas and the TSSs and other routes which lead into them (UKHO, 2020).

## Table 1.2 Three Developments AOI Coordinates (WGS84)

| Point | Latitude | Longitude |
|---|---|---|
| A | 51° 53’ 03.03” N | 001° 30’ 47.85” E |
| B | 51° 53’ 03.03” N | 001° 49’ 19.81” E |
| C | 51° 45’ 52.56” N | 001° 30’ 47.85” E |
| D | 51° 45’ 52.56” N | 001° 49’ 19.81” E |

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## Plate 1.1 Sea Link NIP Areas of Interest

### IMO Routeing Measures AOI

1.2.11 The IMO Routeing Measures AOI has been added to the NIP in response to a request from Port of London Authority (PLA) that the NIP include Sea Link's crossing of the Long Sand Head Two-Way Route and a request from the Maritime and Coastguard Agency (MCA) in January 2026 that the NIP cover this area and also where the Sea Link route crosses the Sunk TSS Outer Precautionary Area. Therefore this new NIP area has been produced to cover both of these regions of the IMO Routeing Measures.

1.2.12 The IMO Routeing Measures AOI is defined by the coordinates shown in Table 1.3.

## Table 1.3 IMO Routeing Measures AOI Coordinates (WGS84)

| Point | Latitude | Longitude |
|---|---|---|
| 1 | 51° 45' 52.92" N | 001° 39' 37.37" E |
| 2 | 51° 45' 52.56" N | 001° 49' 19.81" E |
| 3 | 51° 42' 39.00" N | 001° 50' 08.40" E |
| 4 | 51° 42' 08.26" N | 001° 42' 54.24" E |
| 5 | 51° 38' 18.60" N | 001° 43' 36.00" E |
| 6 | 51° 38' 05.05" N | 001° 40' 25.77" E |
| 7 | 51° 45' 52.92" N | 001° 39' 37.37" E |

### Princes Channel Approaches AOI

1.2.13 The Princes Channel Approaches AOI has been established after discussion between National Grid and the Port of London Authority, in order to address concerns around vessel management within the southern approaches to the Port of London, associated with the Princes Channel and the NE Spit boarding area.

1.2.14 The Princes Channel Approaches AOI is defined by the coordinates shown in Table 1.4

1.2.15 The Princes Channel Approaches AOI is partially covered (in its western half) by the London VTS area, operated by the Port of London Authority (PLA).

## Table 1.4 Princes Channel Approaches AOI Coordinates (WGS84)

| Point | Latitude | Longitude |
|---|---|---|
| 1 | 51° 30' 01.55" N | 001° 27' 59.39" E |
| 2 | 51° 30' 02.10" N | 001° 31' 59.33" E |
| 3 | 51° 32' 26.17" N | 001° 35' 23.30" E |

| Point | Latitude | Longitude |
|---|---|---|
| 4 | 51° 28' 17.10" N | 001° 38' 04.15" E |
| 5 | 51° 27' 39.57" N | 001° 38' 05.80" E |
| 6 | 51° 27' 39.45" N | 001° 36' 04.21" E |
| 7 | 51° 26' 35.02" N | 001° 34' 09.94" E |
| 8 | 51° 24' 09.22" N | 001° 37' 41.85" E |
| 9 | 51° 24' 08.02" N | 001° 38' 18.67" E |
| 10 | 51° 20' 18.97" N | 001° 34' 09.52" E |
| 11 | 51° 23' 14.30" N | 001° 31' 35.24" E |
| 12 | 51° 27' 02.03" N | 001° 26' 22.31" E |
| 13 | 51° 27' 45.32" N | 001° 22' 56.90" E |
| 14 | 51° 30' 01.55" N | 001° 27' 59.39" E |

### Kent Landfall AOI

1.2.16 The Kent Landfall AOI has been established to focus managing risks with installation and maintenance activities within Pegwell Bay, ensuring enhanced communication of activity details within this region. The AOI has been drawn to be inshore of the B2 and West Quern buoys with these as easternmost vertices, in order to have easily recognisable boundary points.

1.2.17 The coordinates for the Kent Landfall AOI are displayed in Table 1.5.

## Table 1.5 Kent Landfall AOI Coordinates (WGS84)

| Point | Latitude | Longitude |
|---|---|---|
| 1 | 51° 19' 05.49" N | 001° 21' 37.23" E |
| 2 | 51° 19' 30.501" N | 001° 21' 56.59" E |
| 3 | 51° 19' 48.82" N | 001° 22' 40.31" E |
| 4 | 51° 19' 33.93" N | 001° 24' 05.29" E |
| 5 | 51° 19' 36.76" N | 001° 24' 32.41" E |

| Point | Latitude | Longitude |
|---|---|---|
| 6 | 51° 19' 26.09" N | 001° 24' 41.18" E |
| 7 | 51° 18' 58.97" N | 001° 25' 23.65" E |
| 8 | 51° 18' 18.30" N | 001° 23' 52.50" E |
| 9 | 51° 18' 17.58" N | 001° 22' 28.43" E |
| 10 | 51° 18' 50.40" N | 001° 22' 25.80" E |
| 11 | 51° 19' 05.49" N | 001° 21' 37.23" E |

## Temporal Scope

1.2.18 The Outline Navigation Installation Plan applies to the construction phase of the Sea Link project and comes into force once Sea Link construction begins. It will also be utilised through the operational and maintenance phase, as appropriate.

1.2.19 This Outline NIP will also form the basis for discussions with key shipping and navigation stakeholders in the lead up to the start of the construction phase.

1.2.20 Construction works would be expected to start in 2026 and be functionally completed by 2030. Indicative timings are outlined below in Table 1.6.

## Table 1.6 Sea Link Indicative Schedule

| Phase | Task | Related activities | Potential Timeframe |
|---|---|---|---|
| Construction | Pre installation | UXO Surveys/Clearance<br>Pre-sweeping<br>Crossing preparation<br>Cable Route clearance | Q2 2026 to Q1 2028 |
| | Suffolk landfall installation | HDD operations | Q1 to Q3 2028 |
| | Kent landfall installation | HDD operations | Q1 to Q3 2027 |
| | 2028 submarine cable installation (Pegwell Bay to the Sunk) | Cable lay<br>Cable burial<br>Post-lay rock | Q2 to Q4 2028 |
| | 2029 submarine cable installation (Aldeburgh to the Sunk) | Cable lay<br>Cable burial<br>Post-lay rock | Q2 2029 to Q1 2030 |
| Operation and maintenance | TBC | TBC | TBC |

## Interested Parties

1.2.21 A number of interested parties have been identified for the Sea Link NIP through consultation undertaken through the scoping, Preliminary Environmental Information Report (PEIR) and Environmental Statement (ES) stages of the Sea Link DCO application, and through engagement as part of the production of the supporting NRA.

1.2.22 Some initial discussions surrounding the NIP specifically have also been conducted with the PLA, HHA and the MCA. The following interested parties have been identified:

- Maritime and Coastguard Agency (MCA);
- Harwich Haven Authority (HHA);
- Port of London Authority (PLA);
- Sandwich Port and Haven;
- London Gateway Port Limited (LGPL);

- UK Chamber of Shipping (UK CoS);
- Five Estuaries Offshore Wind Farm;
- North Falls Offshore Wind Farm;
- GridLink;
- Channel VTS (Channel Navigation Information Service); and
- Sunk VTS.

## 1.3 Updating the NIP

1.3.1 The Outline Navigation Installation Plan is intended to be a 'live' document which is updated up to the start of the Sea Link construction phase, enabling additional input from and further engagement with interested parties. Updated versions will then be produced at regular intervals during Sea Link's construction phase until the cable construction is complete. The NIP may also be utilised during the operation and maintenance phase and updated as required.

1.3.2 The NIP will be promulgated to interested parties at regular intervals up to and during the construction phase, and also during the operation and maintenance phase as required.

1.3.3 The NIP will be provided to Interested Parties for review prior to its submission to the MMO. Prior to the final version of the NIP before construction, the Applicant will consult with Interested Parties to agree communication requirements such as specific timeframes and frequencies of communication amongst the Interested Parties. These agreed communication protocols and details will then be added to the NIP. Table 1.7 details the expected timeline for NIP updates.

### Table 1.7 Timeline for NIP updates

| Milestone | Indicative date | NIP updates |
|---|---|---|
| Pre-Examination phase | September 2025 | Initial drafting of Outline NIP, after engagement with stakeholders and post-NRA production |
| Examination phase | Q4 2025 to Q2 2026 | Further updates based on feedback from Examining Authority and shipping and navigation stakeholders received during Examination phase |
| Post consent | TBC | TBC |
| Construction phase | TBC | TBC |
| Operational and maintenance phase | TBC | TBC |
| Decommissioning phase | TBC | Superseded by Decommissioning Plan |

# 2. Project Vessel Activities

## 2.1 Indicative offshore project parameters

2.1.1 The Sea Link Offshore Scheme consists of two HVDC cables (one bundled pair), with one fibre optic cable (bundled). Up to two HVDC joints, and one fibre optic joint, are expected. The main offshore route is expecting to have one cable trench, the size of which is dependent on final engineered cable and bundle dimensions as well as trenching methodology and sediment type, but is expected to be in the range of 0.3 m to 1.2 m in width.

## 2.2 Pre-Installation

### Pre Cable-Lay Survey

2.2.1 Details of anticipated pre cable lay survey activities (which will be finalised in a future NIP draft) are provided in Table 2.1.

**Table 2.1 Typical information for pre lay survey activities**

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |

| | |
|---|---|
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

## UXO Clearance

2.2.2 Details of UXO clearance activities are provided in Table 2.2 (noting these will be subject to their own marine licensing process and mitigations and are provided here for information only).

2.2.3 UXO approach will be estimated after the planned UXO survey, which was anticipated to be 2025 in the DCO application however is now likely to be undertaken in 2026.

### Table 2.2 Typical information for UXO clearance activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

## Cable route clearance activities

2.2.4 Details of anticipated cable route clearance activities are provided in Table 2.3.

## Table 2.3 Typical information for cable route clearance activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

### Sandwave Clearance

2.2.5 Details of anticipated sandwave clearance activities are provided in Table 2.4.

## Table 2.4 Typical information for sandwave clearance activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |

| Parameter | Indicative details |
|---|---|
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

## Wet Storage

2.2.6 The location of planned wet storage areas if required will also not occur within three Areas of Safeguarded Depth, as defined by the Port of London Authority as being the "Sunk Pilot Boarding area", "Long Sand Head Two-Way Route crossing area" and "Northeast Spit area" (**Application Document 9.104 Areas of Safeguarded Water Depth Plan**, submitted at Deadline 4).

## Cable Crossing Preparation

2.2.7 Details of anticipated cable crossing preparation activities are provided in Table 2.5.

**Table 2.5 Typical information for cable crossing preparation activities**

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

## 2.3 Installation

### Kent landfall

2.3.1 Details of anticipated installation activities at the Kent landfall are provided in Table 2.6, and include HDD operations.

## Table 2.6 Typical information for Kent landfall activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

### Cable Lay and Burial

2.3.2 Details of anticipated cable lay / burial activities are provided in Table 2.7 and Table 2.8.

## Table 2.7 Typical information for cable lay/ burial activities for the 2028 submarine cable installation – Pegwell Bay to the Sunk

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |

| Parameter | Indicative details |
|---|---|
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

**Table 2.8 Typical information for cable lay/ burial activities for the 2029 submarine cable installation – Aldeburgh to the Sunk**

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *N/A* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *N/A* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

## Cable Protection / Post-lay Rock

2.3.3 It is intended that the cable will be buried where practicable. However, where Target Depth of Lowering (TDOL) cannot be achieved, rock backfill may be installed.

2.3.4 Indicative details of cable protection activities are provided in Table 2.9.

## Table 2.9 Typical information for cable protection activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

### Cable crossings

2.3.5 There are a number of known in-service and future cable crossings which fall within the Sea Link NIP AOIs.

2.3.6 These include Five Estuaries export corridors, NeuConnect cable, North Falls planned export corridor and GridLink planned cable.

2.3.7 No offshore pipeline crossings are expected.

2.3.8 Further detail on expected cable crossings can be found in **Application Document 9.74 Shipping and Navigation Under-Keel Clearance Marine Engineering Technical Note [REP1A-038]**. See also Section 3.9 regarding Areas of Safeguarded Water Depth.

2.3.9 Details of anticipated cable crossing activities are provided in Table 2.10.

## Table 2.10 Typical information for cable crossing activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

### Post Lay Surveys

2.3.10 Details of anticipated post cable lay survey activities are provided in Table 2.11.

## Table 2.11 Typical information for post-lay survey activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |

| Parameter | Indicative details |
|---|---|
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

### Rock Placement

2.3.11 Indicative details of potential rock placement activities in the operation and maintenance phase are provided in Table 2.12.

## Table 2.12 Typical information for remedial rock placement activities

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |

| Parameter | Indicative details |
|---|---|
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Kent Landfall AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

## 2.4 Operational and Maintenance

### Cable Repair

2.4.1 Details of potential cable repair or reburial activities are provided in Table 2.13. Cable repairs would be informed by a Repair Preparedness Plan (RPP).

**Table 2.13 Indicative details for cable repair / reburial activities**

| Parameter | Indicative details |
|---|---|
| Vessel(s) required | *TBC* |
| Geographical extent covered | *TBC* |
| Duration of activity within East of North Shipwash AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Three Developments AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within IMO Routeing Measures AOI (excluding adverse weather delays) | *TBC* |
| Duration of activity within Princes Channel Approaches AOI (excluding adverse weather delays) | *TBC* |
| Speed when undertaking activity | *TBC* |

| Parameter | Indicative details |
|---|---|
| Continuous or discontinuous activity | *TBC* |
| Additional parameters as required | *TBC* |

## 2.5 Third Party Vessel Movements

2.5.1 Movements by third-party vessels have been characterised and analysed in detail in the Sea Link NRA **(Application Document 6.3.4.7.A ES Appendix 4.7.A Navigational Risk Assessment [APP-203]).** Additionally, consideration has been given to the potential future baseline during the lifetime of Sea Link.

2.5.2 However, it is recognised that at the time of the construction phase commencing that vessel movements and routeing may have altered significantly and may not align with the scenarios estimated within the NRA, in which case it may be necessary to update the NRA document within the five NIP AOI post-consent.

# 3. Planned Protocols, Mitigation and Management

## 3.1 Introduction

3.1.1 This section provides details of planned protocols and mitigation which will be implemented for the Sea Link project vessel activities outlined in Section 2.

## 3.2 Key Project Protocols

3.2.1 As committed to in the **Application Document CEMP 7.5.3.1 Appendix A Outline Code of Construction Practice [APP-341]**:

- As-built locations of cable and external protection will be supplied to UKHO (Admiralty), The Crown Estate and Kingfisher (KIS-ORCA).
- All project vessels must comply with the International Regulations for Preventing Collisions at Sea (1972) (IMO, 2019), regulations relating to International Convention for the Prevention of Pollution from Ships (the MARPOL Convention 73/78) (IMO, 2019) with the aim of preventing and minimising pollution from ships and the International Convention for the Safety of Life at Sea (SOLAS, 1974).
- A risk based burial approach will be used where cables will be buried to a minimum DOL to the top of the cable of 0.5 m (in areas of bedrock), with a target DOL for the Proposed Project of approximately 1 m to 2.5 m, assessing cable protection risk factors such as sediment type, shallow geology, sediment mobility, fishing activity, shipping movements and anchor deployment along the route.
- Relevant information during construction, and operational and maintenance phases will be communicated to other sea users via Notices to Mariners (NtM), Radio Navigation Warnings Navigational Telex (NAVTEX) and/or broadcast warnings on VHF.
- All Project vessels will display appropriate marks and lights and will always broadcast their status on AIS.
- Temporary aids to navigation will be used as required to guide vessels around areas of installation activity.
- A compass deviation report will be produced prior to installation.
- Guard vessel(s), using RADAR with Automatic RADAR Plotting Aid (ARPA) and Automatic Identification System (AIS) to monitor vessel activity and predict possible interactions, will be employed to work alongside the installation vessel(s) during cable installation works.

3.2.2 Additionally, the following protocols apply:

- In addition to compliance with COLREGs and SOLAS, all project vessels will also be subject to inspection, classification and certification to ensure compliance with both

local and international marine legislation. Additionally, all considerations to marine warranty for the project will also be included.

- Project vessels may also broadcast additional nav warnings on VHF.
- Relevant information during construction, and operational and maintenance phases may also be communicated to other sea users via local navigation warnings.
- Compliance with SUNK Rules as applicable, as documented in Admiralty List of Radio Signals (ALRS), Page 447 (NP286(1), Vol 6, 6th Edition, 2025.

## 3.3 Concurrent RAM Operations in the Sunk Region

3.3.1 Stakeholder engagement particularly with HHA has highlighted concerns surrounding Restricted in Ability to Manoeuvre (RAM) vessel works within the Sunk region running concurrently with other offshore projects.

### Defining “concurrent RAM activities”

3.3.2 Concurrent activity restrictions detailed within the NIP relate to project vessels displaying RAM status and also meeting the requirements of the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs) Rule 3(g)i and 3(g)v as follows:

3.3.3 *3(g) The term "vessel restricted in her ability to manoeuvre" means a vessel which from the nature of her work is restricted in her ability to manoeuvre as required by the Rules [COLREGs] and is therefore unable to keep out of the way of another vessel. The term "vessels restricted in their ability to manoeuvre" shall include but not be limited to: (i) a vessel engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline; and (v) a vessel engaged in mine clearance operations.*

3.3.4 Navigational status of the project vessels involved in the activities may result in third-party vessels having operational priorities as per the requirements of COLREGs.

3.3.5 The concurrent RAM activity area is displayed in Plate 3.1.

### Protocols

3.3.6 Simultaneous RAM operations with other offshore projects will be avoided and are not permitted to occur within the “Concurrent RAM Activity Area” within the Sunk region shown in Plate 3.1. Non RAM operations may be undertaken simultaneously.

3.3.7 The Sea Link project has committed in the CEMP **(Application Document 7.5.2 Outline Offshore Construction Environmental Management Plan [APP-339])** to the following:

- Coordination of planned operations within the Sunk region, to avoid concurrent Restricted Ability to Manoeuvre (RAM) operations (such as cable lay) with other projects in the Sunk area where possible, in particular regarding the North Falls and Five Estuaries Wind Farm projects.
- Restricted Ability to Manoeuvre operations in the Sunk area should be avoided where practicable in visibilities of below 2 nautical miles.

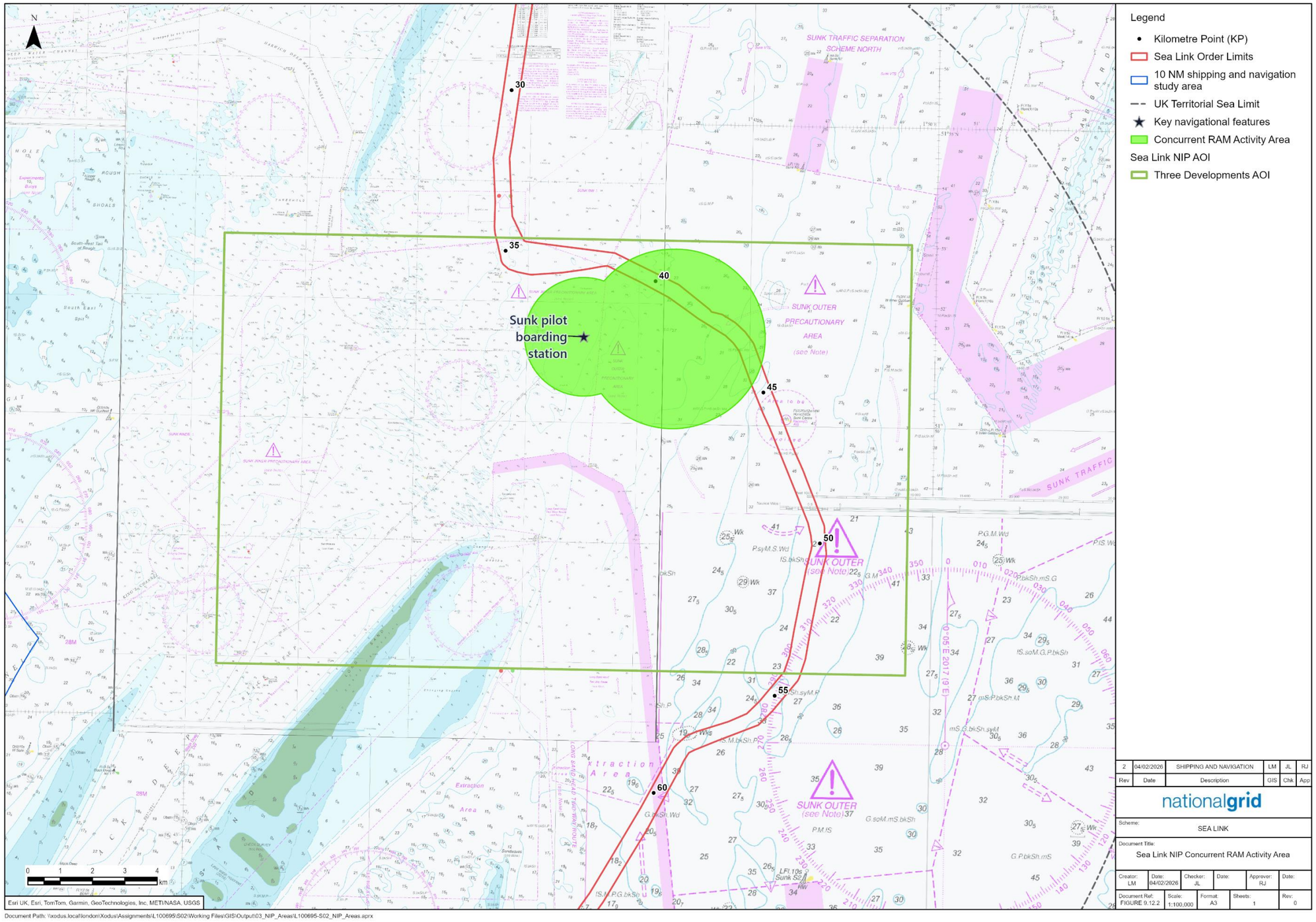
3.3.8 Therefore, Sea Link will continue to engage with Five Estuaries and North Falls offshore wind farm projects regarding the Sunk region in order to:

- Keep up to date on project progress and developments;
- Understand the potential for overlap in planned construction schedules as soon as this becomes apparent;
- Seek agreement on how concurrent RAM activities within the Sunk region can be avoided; and
- Align NIPs between the three projects, as appropriate.

3.3.9 Vessels meeting the requirements (Rule 3(g) i and v) detailed in Paragraph 3.3.3 and undertaking RAM project activities will be restricted from working concurrently (both in terms of Sea Link construction vessels, and those engaged in the construction of North Falls and Five Estuaries as far as reasonably foreseeable) in the Concurrent RAM Activity Area defined in section 3.3.5, while noting that Sea Link can only control its own vessels.

3.3.10 This NIP will be updated in due course in order to manage project vessels engaged in RAM operations within the Concurrent RAM Activity Area, and coordinate effectively with other projects, namely Five Estuaries and North Falls offshore wind farm projects.

3.3.11 Where concurrent RAM operations between these offshore projects do nonetheless occur, Sea Link will minimize disruption and potential risks via an Emergency Plan, which will be referenced in future versions of the NIP. Once an Emergency Plan has been prepared, further discussion of it will be held with the Interested Parties, as required.

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## Plate 3.1 Sea Link Concurrent RAM Activity Area

## 3.4 Notification of Planned Activities

3.4.1 It has been highlighted through engagement with shipping and navigation stakeholders that notification of planned activities is a concern. The NIP will establish how necessary information will be promulgated to shipping and navigation stakeholders.

3.4.2 The following commitments are established in the Sea Link CEMP **(Application Document 7.5.2 Outline Offshore Construction Environmental Management Plan [APP-339]):**

- Notice(s) to Mariners, Radio Navigational Warnings, NAVTEX and/or broadcast warnings will be issued prior to the commencement of installation works.
- Notification of regular runners including ferry operators. Engagement with regular runners and specifically ferry operators ensures awareness of the installation details which minimises disruption.
- UKHO Temporary/Preliminary Notices to be issued to ports, harbours and pilots, and any other appropriate parties prior to post-lay/as-built survey such that the basic positions of the cable are established and awareness among mariners can be raised immediately. As-built locations of cable and external protection will be supplied to the UK Hydrographic Office (UKHO) (Admiralty), The Crown Estate and Kingfisher (KIS-ORCA).

3.4.3 A process flowchart will be established and added to the NIP, in agreement with the Interested Parties, which will detail how activities within the five AOI will be notified in advance of project vessel activities. This may include such protocols as a set frequency of stakeholder calls during construction, workshops to discuss RAM vessels, and a 24-hour or 48-hour lookahead.

3.4.4 If the cable route changes significantly prior to construction, the Project will consult with Interested Parties prior to construction starting.

## 3.5 Contingency Plans

3.5.1 Contingency plans are necessary to determine of the actions to be taken in an emergency situation. These also define the thresholds for which activities (including where the project vessel has restricted status) may need to be abandoned in such a situation.

3.5.2 Contingency plans will be established, and reference included in future versions of the NIP. Once contingency plans have been prepared, further discussion of them will be held with the Interested Parties, as required.

## 3.6 UXO Protocol

3.6.1 For operations identifying and/ or removing UXO within the AOI additional protocols will be required.

3.6.2 Micro-routeing around isolated UXO targets would be undertaken where possible, with a closest point of approach to the target, based on the eventual installation methodology.

3.6.3 Whilst avoidance would be the preferred approach, if UXO clearance is necessary, the activity would be undertaken in accordance with approved industry practices for removal and disposal/waste management of ordnance.

3.6.4 The MCA preference is typically not to remove the UXO unless essential for safety. Therefore, Sea Link may identify and leave UXO in situ where there is no danger to shipping. If identified UXO does need removal for construction reasons, Sea Link will be required to follow the marine licensing process which will include discussion with the relevant authorities to plan removal and discuss any necessary mitigations. The marine licensing process requires consideration of shipping and navigation activities in the area.

3.6.5 Interested Parties will be notified of UXO clearance activities.

## 3.7 Pegwell Bay

3.7.1 The Sea Link NRA has highlighted that Pegwell Bay is an area of particular interest regarding project activities, and therefore the Kent Landfall AOI has been created for this NIP.

3.7.2 Pegwell Bay is a region of very shallow water and challenging navigation for vessels entering and exiting the River Stour and may also have a high presence of amateur or inexperienced recreational boaters.

3.7.3 Sandwich Port and Haven Authority will be included in all notifications and communications of construction or maintenance activities within this region, in particular on the topic of any expected (or unexpected) change in under-keel clearance or anticipated introduction of seabed hazards.

3.7.4 In terms of expected changes in under-keel clearance within the Pegwell Bay, the Project is currently not anticipating any significant changes in under-keel clearance as a result of constructionworks.

3.7.5 In terms of any anticipated introduction of seabed hazards within Pegwell Bay, during the construction phase there may be temporary hazards present within the Kent Landfall AOI. These may include the presence of a Shallow Water Barge (SWB) and post-installation trenching support vessel which will be in the intertidal and subtidal area and initially on an anchor spread. Further details of this will be provided once known.

## 3.8 Magnetic Compass Deviations

3.8.1 The NIP will, where necessary, highlight areas of high potential magnetic compass deviations, where identified by EMF assessment.

3.8.2 The Sea Link EMF Report **(Application Document 6.5 Electric and Magnetic Field Compliance Report [APP-289])** establishes that very low compass deviation occurs over the majority of the route, and meets MMO requirements.

3.8.3 The report concludes that where the cables come ashore for very short distances in shallow waters this results in greater compass deviations, despite the reduced magnetic fields produced. However, the given the shallow sea depths in the transition areas, very close proximity to the shoreline and limited distance the magnetic fields extend, navigation via compass in this particular situation is unlikely to be considered an issue.

## 3.9 Areas of Reduction in Water Depth

3.9.1 The Proposed Project's primary protection strategy is cable lowering below the seabed rather than surface lay, with rock backfill within the trench in High Risk Areas (as

identified by the CBRA). Therefore there are few locations along the cable route where a reduction in water depth may take place, and these mainly relate to cable crossing locations.

3.9.2 When areas within the five NIP AOI where there will be a reduction in water depth during the construction or operation and maintenance phases are identified, and therefore may affect under-keel clearance and access to ports, these will be highlighted within this NIP. For the avoidance of doubt, any such reductions would still be in adherence with the requirements set within the Areas of Safeguarded Depth, as detailed below and secured within the Deemed Marine License. Additionally, the MCA's standard requirement of no more than 5% reduction in water depth with respect to Chart Datum or consultation with the MCA is required, would also apply throughout the NIP AOI (and along the whole cable route) which is also secured within the Deemed Marine License.

### Areas of Safeguarding Water Depth

3.9.3 During consultation, the PLA has expressed concerns surrounding planned reductions in water depth. The PLA has established (in August 2025) three specific areas of particular concern, where they wish water depth to be safeguarded. These are:

- The Sunk pilot boarding area – safeguarding to 22 m below Chart Datum (CD);
- Long Sand Head Two-Way Route crossing – safeguarding to 12.5 m below CD; and
- North East Spit – safeguarding to 12.5 m below CD.

3.9.4 It has also been agreed that the ports also require an additional 0.5m "over dredge" on top of the depth thresholds established above.

3.9.5 These three areas are displayed on Plate 3.1 PLA Areas of Safeguarded Depth.

3.9.6 The Areas of Safeguarded Depth have also been discussed and agreed with Harwich Haven Authority, London Gateway Port Limited and the MCA as areas where specific depths must be preserved. Therefore these water depth requirements will be incorporated as necessary into any construction plans and communication plans during the construction and operational phases. The three Areas of Safeguarded Depth each fall within one of the five NIP AOI.

### Cable Joints in Areas of Safeguarded Depth

3.9.7 The Project has no planned cable joints within the three Areas of Safeguarded Depth excluding the need for any unforeseen repairs during installation and/or the operational lifetime. This commitment is also included within the Outline Cable Specification and Installation Plan (**Application Document 9.92**).

## 3.10 Safety Zones

3.10.1 As outlined within Application Document **Application Document 9.84 Register of Environmental Actions and Commitments (REAC) [REP3-078],** the Proposed Project will utilise a rolling 500 m radius Recommended Restricted Zone (RRZ) around construction vessels, which is consistent with Rule 2 of the COLREGs. Prior to construction, the Proposed Project will liaise with the Interested Parties to establish communication protocols regarding these Safety Zones, which may include pre-commencement meetings, a 2-weeks advance notice before arrival within a NIP AOI,

and daily updates during these activities of interest in the NIP AOI. This will be discussed further with Interested Parties, and the NIP updated accordingly.

## 3.11 Exclusion Zones

3.11.1 As outlined within Application Document **Application Document 9.84 Register of Environmental Actions and Commitments (REAC) [REP3-078]** the Proposed Project will not put in place any Exclusion Zones. As this is a subsea cable project, without need for permanent exclusion zones, the Proposed Project has not sought any permanent exclusion zones in the DCO, and therefore there will be no permanent exclusion zones within any Areas of Interest, or at any location along the cable route.

## 3.12 Freespan Clearance

3.12.1 The Proposed Project's primary cable protection strategy is via cable lowering. If a freespan is detected along the cable route, this would be re-surveyed and options would be assessed to remediate depending on the location of the exposure, and a remediation campaign would be planned.

3.12.2 In the interim the exposure will be reported to the Interested Parties and other marine users via the appropriate communications, as per the DCO and DML mechanisms and REAC commitments.

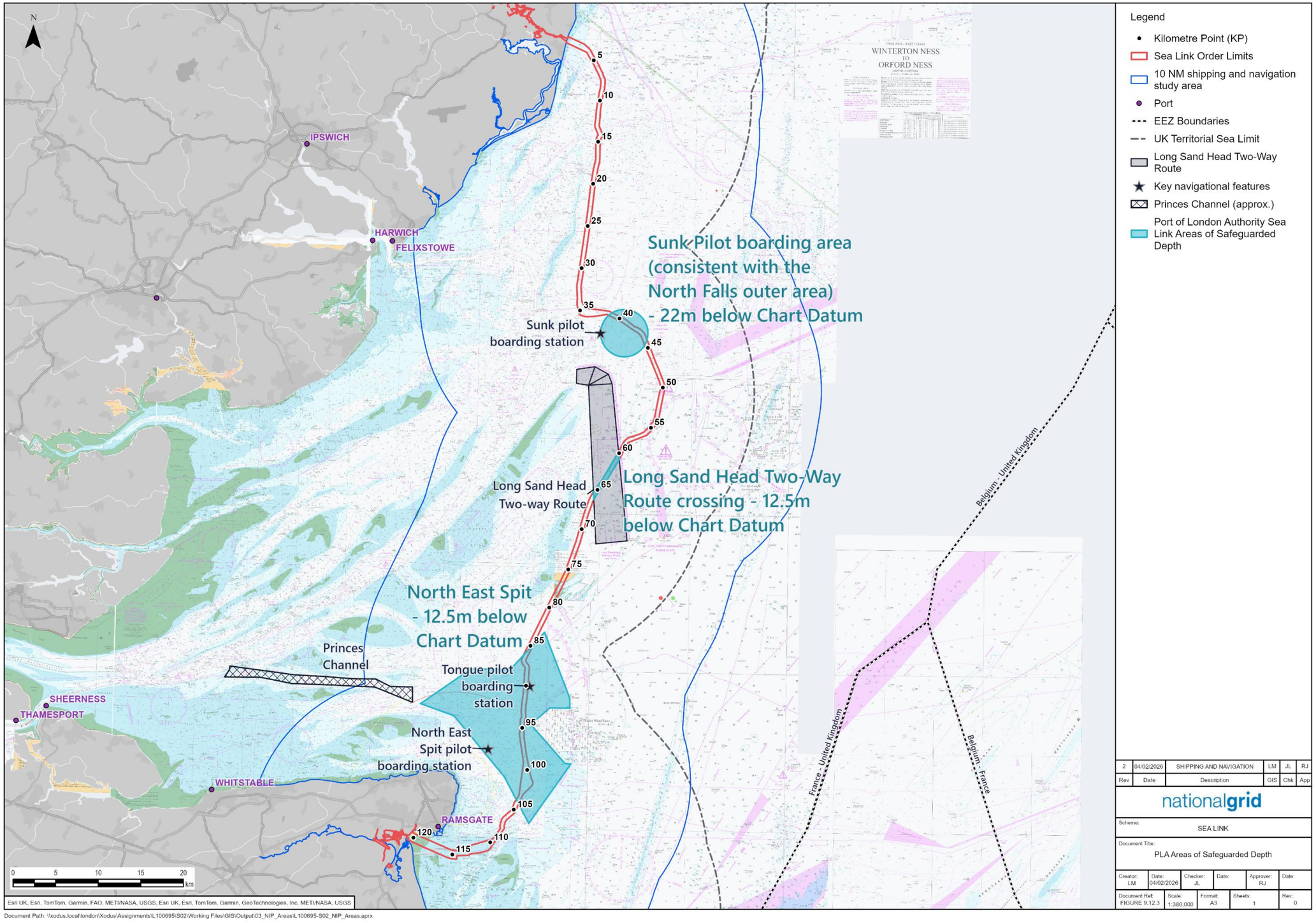


**Figure 3.1 PLA Areas of Safeguarded Depth**

# References


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