



NORTH FALLS

Offshore Wind Farm

Outline Navigation and Installation Plan (~~Clean~~Tracked)

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Glossary of Acronyms

AOI	Area of Interest
CD	Chart Datum
COLREGs	Convention on the International Regulations for Preventing Collisions at Sea
CSIP	Cable Specification and Installation Plan
DCO	Development Consent Order
DWC	Deep Water Channel
DWR	Deep Water Route
ERCoP	Emergency Response Cooperation Plan
ES	Environmental Statement
Five Estuaries	Five Estuaries Offshore Wind Farm
HAZOP	Hazard and Operability
HHA	Harwich Haven Authority
IP	Interested Party
m	metres
MCA	Maritime and Coastguard Agency
NIP	Navigation and Installation Plan
nm	Nautical Mile
NRA	Navigational Risk Assessment
PEIR	Preliminary Environmental Information Report
PLA	Port of London Authority
PLGR	Pre-Lay Grapnel Run
RAM	Restricted in Ability to Manoeuvre
SAC	Special Area of Conservation
UXO	Unexploded Ordnance
VTS	Vessel Traffic Service

Glossary of Terminology

Array area	The offshore wind farm area, within which the wind turbine generators, array cables, platform interconnector cable, offshore substation platform(s) and/or offshore converter platform will be located.
Array cables	Cables which link the wind turbine generators with each other, the offshore substation platform(s) and/or the offshore converter platform.
Collision	The act or process of colliding (crashing) between two moving objects.
Embedded mitigation	A commitment made by North Falls to reduce and/ or eliminate the potential for significant risks.
Environmental Statement (ES)	A document reporting the findings of the Environmental Impact Assessment (EIA) and produced in accordance with the EIA Directive as transposed into United Kingdom (UK) law by the EIA Regulations.
Formal Safety Assessment (FSA)	A structured and systematic process for assessing the risks and costs (if applicable) associated with shipping activity
Impact	A potential threat to human life, health, property, or the environment
Marine Guidance Note (MGN)	A system of guidance notes issued by the Maritime and Coastguard Agency (MCA) which provide significant advice relating to the improvement of the safety of shipping at sea, and to prevent or minimise pollution from shipping.
Navigational Risk Assessment (NRA)	A document which assesses the overall impact to shipping and navigation of a proposed Offshore Renewable Energy Installation (OREI) based upon Formal Safety Assessment (FSA).
Offshore cable corridor	The corridor of seabed from the array area to the landfall within which the offshore export cables will be located.
Offshore export cables	The cables which bring electricity from the offshore substation platform(s) to the landfall, as well as auxiliary cables.
Offshore Renewable Energy Installation (OREI)	As defined by Marine Guidance Note (MGN) 654 (Merchant and Fishing) Safety of Navigation: Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response (Maritime and Coastguard Agency (MCA), 2021). For the purposes of this report and in keeping with the consistency of the Environmental Impact Assessment, OREI can mean offshore wind turbines and the associated electrical infrastructure such as offshore substations.
Offshore substation platform(s)	Fixed structure(s) located within the array area, containing HVAC electrical equipment to aggregate the power from the wind turbine generators and increase the voltage to a more suitable level for export to shore via offshore export cables.
Significance of effect	The combination of frequency of occurrence and severity of consequence of an impact.
The Applicant	North Falls Offshore Wind Farm Limited (NFOW).
The Project Or 'North Falls'	North Falls Offshore Wind Farm, including all onshore and offshore infrastructure.
Third Party Vessels	Any vessel (including those visiting named ports <u>ports named within the oNIP</u>) that are not associated with The Project or other projects (such as Five Estuaries vessels) which have agreed to comply with the same Navigation and Installation Plan.
Vessel Traffic Service (VTS)	A service implemented by a competent authority such as a port which is designed to improve the safety and efficiency of vessel traffic and to protect the environment. The Page 8 of 26 Term Definition service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area.

1 Purpose

1. During consultation relating to the Navigational Risk Assessment (NRA) for North Falls (Environmental Statement (ES) Appendix 15.1 NRA (~~Document Reference: 3.3.16~~) [APP-106, APP-107, and APP-108], it was agreed with Interested Parties (IP) (as referenced in Section 2.5) that a mechanism is required for managing concurrent working involving North Falls project vessels within the Area of Interest (AOI).
2. This outline Navigation and Installation Plan (NIP) serves as the mechanism and is considered an embedded mitigation for minimising the significance of effect associated with shipping and navigation impacts. The NIP is required to ensure that North Falls activities within the AOI minimise impact on third-party vessels with particular emphasis on:
 - Deep draught vessels accessing local ports via the recommended Deep Water Routes (DWR) within the Sunk Inner Precautionary Area;
 - Pilotage activities undertaken by the Harwich Haven Authority (HHA) including the boarding and landing of London and Medway pilots; and
 - Other port related third-party vessels/ activities including spot dredging.
3. The NIP recognises that the disruption to the movement of vessels to and from the ports, terminals and jetties within the Thames Estuary should be minimised by the planned protocols and actions laid out within this document.
- 3.4. The NIP does not consider general vessel management associated with North Falls, e.g., entry and exit points for project vessels to/ from the array areas, since this will be managed by North Fall's marine coordination which will be addressed post consent as set out in ES Chapter 15 Shipping and Navigation (~~Document Reference 3.1.17~~APP-029).
- 4.5. The following tables gives an overview of changes within each revision of the NIP.

Table 1.1 Summary of the NIP changes

NIP Revision Number	Summary of Changes	Relevant Section of the NIP
01	<ul style="list-style-type: none">Updated to reflect version agreed as part of the Five Estuaries Offshore Wind Farm Application	<ul style="list-style-type: none">All sections
02	<ul style="list-style-type: none">Definition for third party vessels includedRefinement of concurrent working areasRefinement of in combination concurrent workingRemoval of details such as agreed clearance depths which are now contained within the oCSIP	<ul style="list-style-type: none">GlossarySection 2.1Table 2.2Throughout all sections
03	<ul style="list-style-type: none">Addition of vessel details to Section 3	<ul style="list-style-type: none">Section 3
<u>04</u>	<ul style="list-style-type: none"><u>Corrections to text</u>	<ul style="list-style-type: none"><u>Definitions, Section 2 and Figure 2.1</u>

1.1 Updates to the Navigation and Installation Plan

~~5.6.~~ The NIP will be updated post consent as additional information relating to the design of North Falls is available and will continue to be updated as necessary until the end of the operation and maintenance phase. Further details relating to updates to the NIP are provided in Section 2.6.

~~6.7.~~ Where further information will be provided to the tables in the pre-construction period, “TBC” has been added. This makes it clear that this information should be provided but will only be known closer to construction.

2 Scope of the Navigation and Installation Plan

2.1 Area of Interest

~~7.8.~~ This NIP includes the area covered by the Sunk Inner and Sunk Outer Precautionary Areas. This aligns with feedback received during consultation for the NRA [**Document Reference: APP-106, APP-107, and APP-108**] which indicated that concerns relating to the presence of project vessels and related activities were largely associated with navigation within the Sunk including use of the Sunk pilot boarding station, recommended DWR, and the Harwich Deep Water Channel (DWC).

~~8.9.~~ The AOI for the NIP is presented in ~~Figure 2.1~~ and corresponding coordinates are outlined in Table 2.1.

Table 2.1 Coordinates of AOI for the NIP

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

~~9.10.~~ Areas of sensitivity for concurrent working within the AOI are listed below with concurrent working defined in Paragraph ~~1746~~. These areas are also shown in ~~Figure 2.1~~.

~~10.11.~~ The concurrent working areas are split into four:

- Sunk Pilotage Area;
- Sunk DWR Area;
- Trinity DWR Area; and
- HHA DWR Area.

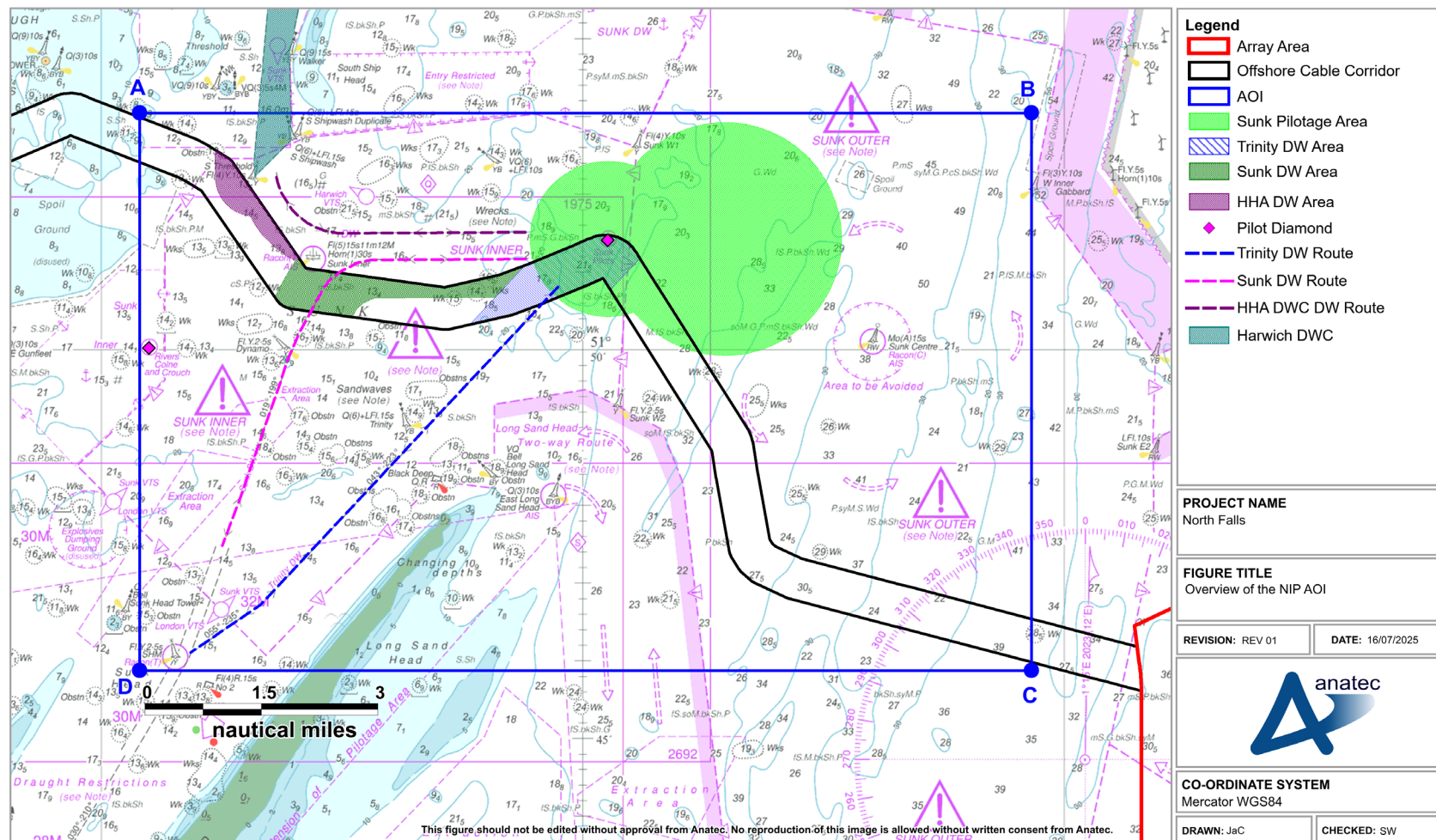


Figure 2.1 Overview of AOI (including Concurrent Working Areas)

2.2 Activities and Associated Vessels

~~11.12.~~ This section details the project activities and Restricted in Ability to Manoeuvre (RAM) vessels for which the NIP applies. Both the project activity and RAM status are required for the measures set out in the NIP to be implemented. Activities will be managed through the protocols outlined in Section 4.

2.2.1 Project Activities

~~12.13.~~ The installation and maintenance activities considered in this NIP include:

- Surveys (where they are considered to involve RAM vessels as defined in Section 2.3);
- Unexploded Ordnance (UXO) clearance following approval of separate marine licence;
- Pre-Lay Grapnel Run (PLGR)/ boulder clearance/ mattress installation;
- Sandwave clearance;
- Cable lay, burial and crossings; and
- Cable repairs and reburial.

~~13.14.~~ This list may be refined once the installation method is confirmed in the Cable Specification and Installation Plan (CSIP) and has been considered as part of the EIA process.

2.3 Concurrent Activities

2.3.1 Definition of Applicable RAM Vessels

~~14.15.~~ Concurrent working 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(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.

2.3.2 Vessels Working for Other Projects Installing Cables

~~15.16.~~ Vessels and activities associated with the Five Estuaries Offshore Wind Farm (‘Five Estuaries’) and Sea Link may be included in a future version of the NIP post consent, depending upon the respective timelines for the construction and operation of North Falls, Five Estuaries and Sea Link.

2.3.3 Classification of Concurrent

~~16.17.~~ 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. As per paragraph ~~1514~~, vessels meeting these requirements (Rule 3(g) i and v) and undertaking project activities as outlined in paragraph ~~1342~~ will be restricted from working concurrently (both in terms of North Falls construction vessels, and those engaged in the construction of Five Estuaries and Sea Link as far as reasonably foreseeable) in concurrent working areas defined in Section 2.1, noting that North Falls can only control its own vessels. For the avoidance of doubt non-RAM vessels will follow COLREGs and will follow advice issued by Sunk Vessel Traffic Service (Sunk VTS).

~~17.18.~~ The following table confirms if concurrent activities are allowed in combination across the concurrent working areas as shown in ~~Figure 2.1~~~~Figure 2.1~~.

Table 2.2 In Combination Concurrent Activities

	Pilotage Concurrent Working Area	Trinity DWR Concurrent Working Area	Sunk DWR Concurrent Working Area
Pilotage Concurrent Working Area		No	Yes
Trinity DWR Concurrent Working Area			Yes No
Sunk DWR Concurrent Working Area			

~~19.~~ ~~For clarity~~ ~~There will be no concurrent working within the Sunk and Trinity DWRs.~~

~~18.20.~~ There are no restrictions on in combination concurrent working with the HHA DW Area shown in ~~Figure 2.1~~~~Figure 2.1~~.

2.4 Temporal Extent

~~19.21.~~ The NIP will apply from the start of offshore construction activities associated with the offshore export cables within the AOI. The indicative programme of offshore construction activities is presented in ~~Table 2.3~~~~Table 2.3~~.

Table 2.3 Indicative Construction Programme

	Q1			Q2			Q3			Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
PLGR & Boulder Clearance												
Seabed Preparation												
Crossing Construction												
Dredging Sunk DWR												
Dredging Trinity DWR												
Dredging Sunk Pilot												
Cable Lay & Pull-In North												
Cable Trenching North												
Cable Lay & Pull-In South												
Cable Trenching South												
Protection Campaign												
Post-Lay Survey												

20-22. It should be noted that whilst any UXO activities would be subject to a separate Marine Licence application, those activities would also be considered a restricted operation, as set out in Section 2.3.

21-23. The NIP will cease to apply following the end of the operation and maintenance phase. Decommissioning works are excluded from consideration and will instead be considered as part of the Decommissioning Programme, which will be required to be prepared pursuant to requirement 25 in Schedule 1 of the dDCO and section 105(4) of the Energy Act 2004.

2.5 Interested Parties

22-24. Consultation relating to shipping and navigation has been ongoing throughout the scoping, Preliminary Environmental Information Report (PEIR), and ES stages of North Falls as part of the NRA process. This has included preliminary discussions in relation to the NIP with HHA, Port of London Authority (PLA), Maritime and Coastguard Agency (MCA), and Trinity House.

23-25. Through this consultation, several IPs have been identified:

- HHA;
- PLA;
- London Gateway;
- Port of Tilbury;
- Port of Medway; and
- Sunk VTS.

2.6 Updates To and Dissemination of the Navigation and Installation Plan

2.6.1 Initial Approval

24-26. As stated in Section 1948, the NIP will apply throughout the construction and operation and maintenance phases. The final content of the NIP will be

discussed and agreed with the IPs post-consent and subsequently submitted to the Marine Management Organisation (MMO) for approval.

~~25-27.~~ Where agreement is requested, IP will have up to 28 days to provide a response in writing, after which time agreement will be deemed to have been given.

~~26-28.~~ Where agreement with any IP cannot be reached clear actions must be provided by the IP to allow North Falls to address outstanding matters. North Falls may submit the NIP for approval to the MMO; where agreement is not provided a copy of the IP's comments will be included to provide the MMO with an understanding of the matters not agreed.

~~27-29.~~ Additionally, the NIP will be provided to the MCA and Trinity House in advance of submission to the MMO.

2.6.2 Subsequent Updates

~~28-30.~~ Noting that the NIP is a live document, as North Falls evolves it may be necessary for the NIP to be updated and with changes disseminated to the IPs. Specifically, the details associated with project vessel activities (Section 3) will be updated if the details change prior to them being implemented. A review of whether the NIP requires updating will be taken annually during construction or where a significant change to marine construction activities relating to the NIP occurs.

~~29-31.~~ Where updates to Section 3 are required, the IPs will be invited by North Falls to review and agree any changes within 28 days in line with the process set out in paragraph ~~2826~~, and the updated NIP will then be promulgated to relevant parties including the MCA and Trinity House. Should changes not be capable of being agreed, the Applicant would submit to the MMO for approval in line with paragraph ~~2826~~. Where an update involves changes to a matter of principle other than details of project vessel activities (i.e., outside of Section 3), the revised NIP will be submitted for approval by the MMO, after following the process set out in paragraph ~~2725~~. Depending upon the nature of any changes to the NIP, it may be necessary to undertake specific training to ensure that relevant contractors are fully informed.

3 Project Vessel Activities

3.1 Installation

3.1.1 Surveys

~~30-32.~~ Details of survey activities involving a RAM vessel are provided in ~~Table 3.1~~ ~~Table 3.1~~ which represents indicative values with the following list noting variables which may affect final values for the parameters:

- *TBC (dependent upon the nature of activities required); and*
- Additional duration may be required.

Table 3.1 Indicative details for pre and post survey activities

Parameter	Indicative Details
Vessel(s) required	Geophysical survey vessel Geotechnical survey vessel with A frame UXO survey vessel
Spatial extent covered	Tow length typically 50 to 150 m for geophysical surveys
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Depends on the type of survey and number of samples required.
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	Depends on the type of survey and number of samples required.
Speed when undertaking activity	Depends on spread, but typically: Multi Beam Echo Sounder (MBES) – 4 to 6 knots Side Scan Sonar (SSS) – 3 to 5 knots Sub Bottom Profiler (SBP) – 2 to 4 knots Vibrocore – 30 mins to 2 hours Cone Penetration Test (CPT) – 1 to 3 hours
Continuous or discontinuous activity	Continuous whilst survey ongoing.
Manoeuvrability	Geophysical survey vessels can move out of the way Geotechnical survey vessels will have restricted manoeuvrability due to being attached to the seabed
Traffic management	TBC
<i>Additional parameters to be added as required</i>	

3.1.2 UXO Clearance

~~31-33.~~ Details of anticipated UXO clearance activities are provided in [Table 3.2](#) ~~Table 3.2~~ which represents indicative values with the following list noting variables which may affect final values for the parameters:

- *TBC (dependent upon the nature of activities required); and*
- Additional duration may be required.

Table 3.2 Indicative details for UXO clearance activities

Parameter	Indicative Details
Vessel(s) required	Dive Support Vessel / SOV / Anchor handler
Spatial extent covered	Depends on the activity undertaken for the clearance of UXO
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Depends on number and size of UXO discovered. If controlled detonations, typically 24 hours per UXO If removal/repositioning, typically 2-4 hrs per UXO
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	See Section 4.5 for contingency plans
Speed when undertaking activity	Vessel is stationary during controlled detonation and removal/repositioning.
Continuous or discontinuous activity	Continuous whilst making a UXO safe
Manoeuvrability	Restricted manoeuvrability during controlled detonation and removal/repositioning.

Parameter	Indicative Details
Traffic management	TBC
<i>Additional parameters to be added as required</i>	

3.1.3 PLGR/ Boulder Clearance

~~32-34.~~ Details of PLGR/ boulder clearance activities are provided in ~~Table 3.3~~**Table 3.3** which represents indicative values with the following list noting variables which may affect final values for the parameters:

- Water depth;
- Equipment;
- Operational requirements; and
- Additional duration may be required.

Table 3.3 Indicative details for PLGR/ boulder clearance activities

Parameter	Indicative Details
Vessel(s) required	Vessel suitable to pull the grapnel train
Spatial extent covered	Tow length typically 150 metres (m)
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Circa 10-14 days
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	
Speed when undertaking activity	Circa 1 knot
Continuous or discontinuous activity	Continuous – with some scope to move
Manoeuvrability	RAM – however, can move off with some warning to pull up gear/move faster through section.
Traffic management	TBC
<i>Additional parameters to be added as required</i>	

3.1.4 Sandwave Clearance

~~33-35.~~ Details of anticipated sandwave clearance activities are provided in ~~Table 3.4~~**Table 3.4** which represents indicative values with the following list noting variables which may affect final values for the parameters:

- Volume to be cleared; and
- Additional duration may be required.

Table 3.4 Indicative details for sandwave clearance activities

Parameter	Indicative Details
Vessel(s) required	Mass flow excavator or suction hopper dredger depending on volume to be dredged
Spatial extent covered	A few meters away from the boat

Parameter	Indicative Details
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Estimated at 14 days, dependent on final cable route alignment
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	
Speed when undertaking activity	MFE is typically <1 knot Suction hopper dredger is typically <2 knots
Continuous or discontinuous activity	Discontinuous
Manoeuvrability	RAM – Can move off with some warning
Traffic management	TBC
<i>Additional parameters to be added as required</i>	

3.1.5 Cable Lay/ Burial

34.36. Details of anticipated cable lay/ burial activities are provided in [Table 3.5](#). These activities do not have flexibility and will not be concurrent with other projects. [Table 3.5](#) represents indicative values for a -typical cable lay methodology with the following list noting variables which may affect final values for the parameters:

- Water depth;
- Cable design (weight, load capacity, etc.);
- Soils;
- Lay and burial equipment on the seabed; and
- Additional duration may be required.

Table 3.5 Indicative details for cable lay/ burial activities

Parameter	Indicative Details
Vessel(s) required	Cable Lay Vessel or Cable Lay Barge for cable lay. Exact vessel subject to technical considerations of the cable route e.g. draught in nearshore areas, capacity of turntable, cable design and contractor experience. Offshore Construction Vessel or support vessel for cable burial (e.g. by mechanical trenching).
Spatial extent covered	Typical layback of 50 to 150 m
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	General Lay/burial: 1.5-4.5 days depending on soil conditions No joints planned in this area. If required could take around 1 week
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	General Lay/burial: 1.5-6 days depending on soil conditions No joints planned in this area. If required could take around 1 week
Speed when undertaking activity	Cable lay is 150 – 450 m per hour typically Cable burial with mechanical cutter may be 50 to 150 m per hour
Continuous or discontinuous activity	Continuous
Manoeuvrability	RAM
Cable Joints	Exact requirement of cable joints to be determined depending on the capacity of the installation vessel. No joints planned in the vicinity of

Parameter	Indicative Details
	the Sunk Inner or Outer Precautionary Area.
Traffic management	TBC
<i>Additional parameters to be added as required</i>	

3.1.6 Cable Protection and Crossings

~~35-37.~~ It is intended that the export cables will be buried wherever possible. However, it is acknowledged that there may be a need for cable protection to be applied for selected sections of the export cables, noting that this ~~may will~~ not prevent dredging, as provided for in the outline Cable Specification and Installation Plan (9.53, Rev 4) within the areas specified in 9.57 Deep Water Route Cable Installation Areas (Future Dredging Depths), (Rev 1) ~~and in the CSIP.~~

~~36-38.~~ There is an expectation that cable crossings will be required, most notably with the export cables for Five Estuaries, Sealink and Neuconnect. The indicative zones for such crossings has been shown in the Export Cable Crossing Zone Plan [REP1-059], which shows they will be outside of the DWR areas. As with cable burial or protection, any cable crossings in proximity to the DWRs will be designed so as to again ensure dredging (as provided in the Cable Specification and Installation Plan (9.53, Rev 4)) is not restricted within the DWR areas defined in 9.57 Deep Water Route Cable Installation Areas (Future Dredging Depths). ~~and the CSIP.~~

~~37-39.~~ Details of cable protection/ crossing activities are provided in Table 3.6 ~~Table 3.6~~. These activities do have flexibility and could be concurrent with other projects. Table 3.6 ~~Table 3.6~~ represents indicative values with the following list noting variables which may affect final values for the parameters:

- Location and nature of Five Estuaries export cables;
- Soil; and
- Additional duration may be required.

Table 3.6 Indicative details for cable protection/ crossing activities

Parameter	Indicative Details
Vessel(s) required	Suction Hopper Dredger and Mass Flow Excavator using a Dynamically Positioned Vessel Cable installation will be as per Table 3.5. Crossings may be installed by a Multifunctional Offshore Construction Vessel, a Cable Lay Vessel or a Rock Installation Vessel (depending on schedule and vessel capability)
Spatial extent covered	Maximum spatial extent will be for the cable lay vessel, which typically has a layback of 50 to 150m. The dredging equipment will have limited layback.
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	For crossing the DW channels: Pre-dredging DW routes. Estimated at an additional 14 days, depending on soil conditions.
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	Cable lay and burial will be as per Table 3.5 For crossing other cables: Crossing preparation – circa 2 weeks undertaken prior to the cable installation Crossing protection – circa 2 weeks undertaken after cable installation

Parameter	Indicative Details
Speed when undertaking activity	MFE is typically <1 knot Suction hopper dredger is typically <2 knots Cable lay is typically 150 – 450 m per hour Vessel is typically stationary for crossing construction
Continuous or discontinuous activity	Continuous
Manoeuvrability	See Table 3.4 for dredging manoeuvrability, and Table 3.5 for cable lay/burial manoeuvrability Restricted manoeuvrability during crossing construction
Traffic management	TBC
<i>Additional parameters to be added as required</i>	

3.2 Maintenance or Repair

3.2.1 Cable Repair/ Reburial

~~38-40.~~ Details of cable repairs/ reburial activities are provided in ~~Table 3.7~~ **Table 3.7** which represents indicative values with the following list noting variables which may affect final values for the parameters:

- *TBC (dependent on nature of activities required).*

Table 3.7 Indicative details for cable repairs/ reburial activities

Parameter	Indicative Details
Vessel(s) required	This depends on the type of work required. If cable repair, a barge or cable lay vessel could be used, if cable burial could be rock dumper or vessel capable of providing cable lowering.
Spatial extent covered	Layback will be slightly longer than the cable installation. This is to allow the jointing activity to take place on deck.
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Cable jointing – as per Table 3.5 Cable reburial – as per Table 3.5 (assumed to be the same duration as cable installation)
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	Rock dumping – depends on the length and height of berm required
Speed when undertaking activity	Vessel stationary when performing offshore jointing. Cable lay may be slower than during installation, typically ~150 m per hour Cable burial with mechanical cutter may be 50 to 150 m per hour
Continuous or discontinuous activity	Continuous
Manoeuvrability	Depends on the activity. Cable burial may be RAM, if using a tool as per installation.
Cable joints	TBC
Traffic management	TBC
<i>Additional parameters to be added as required</i>	

3.3 Third Party Vessel Movements

~~39-41.~~ Movements by third-party vessels have been characterised and analysed in detail in the NRA [**Document Reference: APP-106, APP-107, and APP-108**].

Additionally, consideration has been given to the evolution of the baseline during the lifetime of North Falls.

~~40.42.~~ However, it is recognised that at the time of installation activities commencing that vessel movements and routines may change and the evolution of the baseline may not mirror that estimated in the NRA [**Document Reference: APP-106, APP-107, and APP-108**]. Therefore, it is necessary to review third-party vessel movements post consent.

~~41.43.~~ Such a review may include an analysis of vessel traffic data and consultation with relevant organisations prior to installation activities commencing. This will be agreed and the outputs shared with the IP to inform discussions surrounding the NIP.

4 Planned Protocols and Actions

~~42.44.~~ This section provides details of planned protocols and actions which will be implemented for project vessel activities outlined in Section 3. These planned protocols and actions work with the commitments to concurrent working to ensure that the Project works closely with interested parties to minimise disruption and delay. Communication will be ongoing during design, construction, and operation and maintenance at appropriate frequency depending on the phase of development. Such frequency will be agreed with the interested parties as required.

4.1 Restricted Operations

~~43.45.~~ For restricted operations¹ a Hazard and Operability (HAZOP) workshop will be undertaken to discuss priorities, actions, and any pertinent information which either project vessels or third-party vessels should be aware of.

~~44.46.~~ The HAZOAP workshop will consider the following items:

- Hazard attendance including the need for inclusion of Trinity House;
- Notification and communication protocols;
- Whether vessels are considered RAM and therefore restricted from concurrent activities and how that may affect operations;
- Any weather constraints and data sources to be used;
- Anything specific to the area of operation i.e., deep water vessel movements (including scheduled calling times and states of –ortide) or pilotage operations; ~~and~~
- Any ongoing maintenance dredging being undertaken under the London Gateway Port Harbour Empowerment Order (HEO) 2008; and
- Any capital dredging that may be consented assuming the future case draught of 20m.-

¹ Any project vessel meeting the requirements of Rule 3(g) of COLREGS.

4.1.1 HAZOP Workshop Attendance

~~45-47.~~ Details of who should be involved in a HAZOP workshop and the format (in-person/ virtual) will be defined at the time, with the IPs as outlined in Section 2.5 invited as standard.

4.1.2 Notifications of Planned Activities

~~46-48.~~ A process flow chart will be added in agreement with the IPs which will detail how activities within the AOI will be managed, notifications required, etc. in advance of project vessel activities.

~~47-49.~~ An optional requirement is to carry a pilot (or other designated person approved by the IPs) to provide local information and communicate directly with Sunk VTS and pilotage launches during RAM vessel activities (those meeting the requirements of paragraph ~~1514~~). This will also include communication with any guard vessels working with the project vessel. This process will be included in any communication plans drawn up for specific activities and will be agreed with and shared amongst any IPs. Who would provide this assistance at the time would be determined based on availability and location.

~~48-50.~~ Notification will also include liaison with Trinity House to identify any aids to navigation and/ or associated works which may be impacted by project vessel activities, noting that will apply throughout the DCO limits.

4.1.3 Weather Constraints and Data

~~49-51.~~ Agreement on weather forecasting data sources to be implemented will be discussed at the HAZOP.

~~50-52.~~ The HAZOP discussion will also define weather limits and associated risks to project vessel and/ or third-party vessel operations, including visibility thresholds (2 nautical miles (nm)).

4.2 Contingency Plans

~~51-53.~~ Determination of the actions to be taken in an emergency situation including a change in weather or visibility conditions.

~~52-54.~~ Thresholds for which activities (including where the project vessel has restricted status) may need to be abandoned.

~~53-55.~~ Again, these will be discussed at the HAZOP.

4.3 UXO Protocol

~~54-56.~~ For operations identifying and/ or removing UXO within the AOI additional protocols will be required.

~~55-57.~~ Initial surveys undertaken will identify potential UXO which will then be further investigated if they cannot be avoided by cable routeing. The identification of UXO will be done remotely and does not require physical intervention.

~~56-58.~~ The MCA preference is typically not to remove the UXO unless essential for safety. Therefore, North Falls may identify and leave UXO in situ where there is no danger to shipping. If identified UXO does need removal for construction

reasons, North Falls 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.

~~57-59.~~ The relevant authorities are the MMO, MCA (and Sunk VTS) and Trinity House who will consult with local users as required.

~~58-60.~~ In the extremely unlikely event that identified UXO presents an immediate danger to shipping the MCA will aim for removal within a short space of time to minimise risks, noting that this process is outwith North Falls's control.

~~59-61.~~ Outside of UXO investigations and the defined MMO licensing process, procedures for unexpected UXO identification are also outlined in the project Emergency Response Cooperation Plan (ERCoP) secured as part of Marine Guidance Note (MGN) 654 requirements. The ERCoP will be agreed with the MCA pre-construction and will include references to the NIP AOI.

4.4 Additional Mitigation Measures

~~60-62.~~ During the HAZOP, it will be determined whether any additional mitigation measures are required such as guard vessels, specific notifications to mariners and application of specific advisory safe passing distances.

4.5 Stakeholder Resource Requirements

~~61-63.~~ During the HAZOP, it will be determined whether any elements of the planned protocol require stakeholder resources above and beyond current manning levels and/ or additional VTS functionality.

5 Timeline

~~62-64.~~ The proposed timeline for updates to this NIP is outlined in ~~Table 5.1~~ [Table 5.1](#). Once the NIP is implemented this section will be removed with future updates applied as required, as noted in Section 2.6.

Table 5.1 Timescales for relevant NIP updates

Milestone	Indicative Date	NIP Updates
Pre meeting(s) with IP	Mid April 2024	Initial version
Follow-up meeting with IP	May 2024	Reviewed version.
Pre Application	June 2024	Final outline version.
DCO Application	July 2024	Final outline version.
Examination	TBC	TBC
Post consent	TBC	TBC
Offshore installation (export cables)	2030	TBC
Operation and maintenance	2030/ 2031	TBC
Offshore decommissioning (export cables)	2060 – subject to end of life considerations	Superseded by Decommissioning Plan.



NORTH FALLS

Offshore Wind Farm



HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm Limited

A joint venture company owned equally by SSE Renewables and RWE.

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