

FIVE ESTUARIES OFFSHORE WIND FARM

VOLUME 9, REPORT 20: OUTLINE NAVIGATION INSTALLATION PLAN (TRACKED)

Application Reference
Application Document Number
Revision
Pursuant to
Ecodoc Number
Date

9.20 B Deadline 1 005023937-02 October 2024

EN010115



COPYRIGHT © Five Estuaries Wind Farm Ltd All pre-existing rights reserved.

In preparation of this document Five Estuaries Wind Farm Ltd has made reasonable efforts to ensure that the content is accurate, up to date and complete for the purpose.

Revision	Date	Status/Reason for Issue	Originator	Checked	Approved
Α	Mar-24	ES	Anatec	VE OWFL	VE OWFL
В	Jun-24	Deadline 1	Anatec	VE OWFL	VE OWFL



CONTENTS

1	Pur	rpose	9
	1.2	Updates to the Navigation Installation Plan	9
2	Ext	tent of the Navigation Installation Plan	10
	2.1	Spatial Extent	10
	2.2	Vessel Types	13
	Proje	ct Vessels	13
	Proje	ct RAM Vessels	13
	Third	-Party Vessels	13
	2.3	Temporal Extent	14
	2.4	North Falls Offshore Wind Farm	14
	2.5	Interested Parties	14
	2.6	Updates to and Dissemination of the Navigation Installation Plan	15
3	Pro	oject Vessel Activities	16
	3.1	Installation	16
	Pre a	and Post Surveys	16
	UXO	Clearance	16
	Pre L	ay Grapnel Run/ Boulder Clearance/ Mattress Installation	17
	Sand	wave Clearance	18
	Frees	span Clearance	19
	Cable	e Lay/ Burial	
	3.2	Maintenance or Repair	
	Cable	e Repairs/ Reburial	
	3.3	Third-Party Vessel Movements	22
4	Pla	inned Protocols and Actions	23
	4.2	Restricted Operations	23
		OP Workshop Attendance	
	Notifi	cation of Planned Activities	23
	Class	sification of Concurrent	24
	Weat	ther Constraints and Data	
	4.3	Contingency Plans	
	4.4	Additional Mitigation Measures	
	4.5	Stakeholder Resource Requirements	26
5	Tim	neline	27



TABLES

Table 2.1: Coordinates of area of interest for NIP	10
Table 3.1: Indicative details for pre and post survey activities	16
Table 3.2: Indicative details for UXO clearance activities	16
Table 3.3: Indicative details for PLGR/ boulder clearance activities	17
Table 3.4: Indicative details for sandwave clearance activities	18
Table 3.5: Indicative details for freespan clearance activities	19
Table 3.6: Indicative details for cable lay/ burial activities	20
Table 3.7: Indicative details for cable protection/ crossing activities	21
Table 3.8: Indicative details for cable repairs/ reburial activities	21
Table 4.1 In Combination Concurrent Activities	24
Table 5.1 Timescales for VE and relevant NIP updates	
FIGURES	
Figure 2.1: Overview of area of interest for NIP (including concurrent working areas) Figure 2.2: Indicative operations summary for offshore construction activities	



DEFINITION OF ACRONYMS

Term	Definition
COLREGs	Convention on the International Regulations for Preventing Collisions at Sea
CSIP	Constructionable Specification and Installation Plan
dML	Deemed Marine Licence
DCO	Development Consent Order
<u>DWR</u>	Deep Water Route
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
<u>ERCoP</u>	Emergency Response Cooperation Plan
ES	Environmental Statement
FSA	Formal Safety Assessment
HAZOP	Hazard and Operability
<u>HEO</u>	Harbour Empowerment Order
HHA	Harwich Haven Authority
m	Metre
MCA	Maritime and Coastguard Agency
MGN	Marine Guidance Note
MMO	Marine Management Organisation
nm	Nautical Mile
NIP	Navigational Installation Plan
NRA	Navigational Risk Assessment
OREI	Offshore Renewable Energy Installation
PEIR	Preliminary Environmental Information Report
PLA	Port of London Authority
PLGR	Pre Lay Grapnel Run
RAM	Restricted Ability to Manoeuvre
SIMOPS	Simultaneous Operations
UK	United Kingdom
UXO	Unexploded Ordnance
<u>VE</u>	Five Estuaries Offshore Wind Farm
VE OWFL	Five Estuaries Offshore Wind Farm Limited



Term	Definition
VTS	Vessel Traffic Service



GLOSSARY OF TERMS

Term	Definition
Collision	The act or process of colliding (crashing) between two moving objects.
Embedded mitigation	A commitment made by Five Estuaries Offshore Wind Farm Limited (VE OWFL) 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 Risk Assessment (FSA).
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.
Significance of effect	The combination of frequency of occurrence and severity of consequence of an impact.
Vessel Traffic Service (VTS)	A service implemented by a Competent Authority designed to improve the safety and efficiency of vessel traffic and to protect the environment. The



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

- 1.1.1 During consultation relating to the Navigational Risk Assessment (NRA) (see Volume 9, Report 10: Navigational Risk Assessment [APP-240]), it was agreed with Interested Parties (as referenced in Section 2.5) that a mechanism is required for managing interactions between project vessels associated with export cable installation/ maintenance/ repair and third-party vessels in navigationally sensitive areas.
- 1.1.2 This outline Navigation Installation Plan (NIP) serves as such a mechanism and is considered an embedded mitigation for minimising the significance of effect associated with shipping and navigation impacts, including vessel displacement and increased collision risk, third-party with project vessel collision risk, reduced access to local ports and harbours including pilotage operations, and reduction in under keel clearance.
- 1.1.3 The NIP does not consider general vessel management associated with Five Estuaries Offshore Wind Farm (VE), e.g., entry and exit points for project vessels to/ from the array areas, since this will be managed by Five Estuaries Offshore Wind Farm Limited's (VE's OWFL) marine coordination which will be addressed post consent as per Volume 6, Part 2, Chapter 9: Shipping and Navigation [APP-078].

1.2 UPDATES TO THE NAVIGATION INSTALLATION PLAN

- 1.2.1 The NIP will be updated post consent as additional information relating to the design of VE is available and will continue to be updated as necessary until export cable installation is complete. Further details relating to updates to the NIP are provided in Section 2.6.
- 1.2.2 For the moment, wWhere further information will be added to the tables in the preconstruction period, "TBC" has been added. This makes clear that this information should be provided but will only be known closer to construction.



2 EXTENT OF THE NAVIGATION INSTALLATION PLAN

2.1 SPATIAL EXTENT

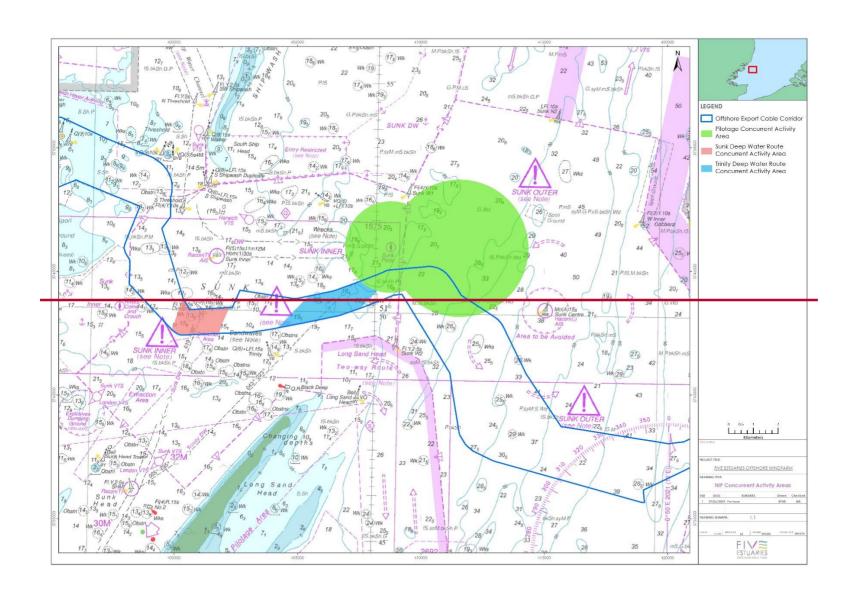
- 2.1.1 This NIP relates to to a portion of the offshore export cable corridor (ECC) and the sea area surrounding it. In particular, the area covered by the Sunk Inner and Sunk Outer Precautionary Areas is considered in this NIP. This aligns with feedback received during consultation for the NRA [APP-240] 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 deep water routes (DWR), and the Harwich Deep Water Channel.
- 2.1.2 The area of interest for the NIP is presented in Figure 2.1 and corresponding coordinates are outlined in Table 2.1.

Table 2.1: Coordinates of area of interest for NIP.

Point	Latitude	Longitude
Α	51° 53' 03.03" N	001° 30' 47.85" E
В	51° 53′ 03.03″ N	001° 49' 19.81" E
С	51° 45' 52.56" N	001° 30′ 47.85″ E
D	51° 45' 52.56" N	001° 49' 19.81" E

- 2.1.3 Additionally further areas within the area of interest are also defined and relate to areas of concurrent activity, with concurrent activity fully defined from Paragraph 4.2.7. These areas are also shown in Figure 2.1.
- 2.1.4 The concurrent activity areas are split into three:
 - > Pilotage Concurrent Activity Area;
 - > Sunk Deep Water Route (DWR) Concurrent Activity Area; and
 - > Trinity DWR Concurrent Activity Area.







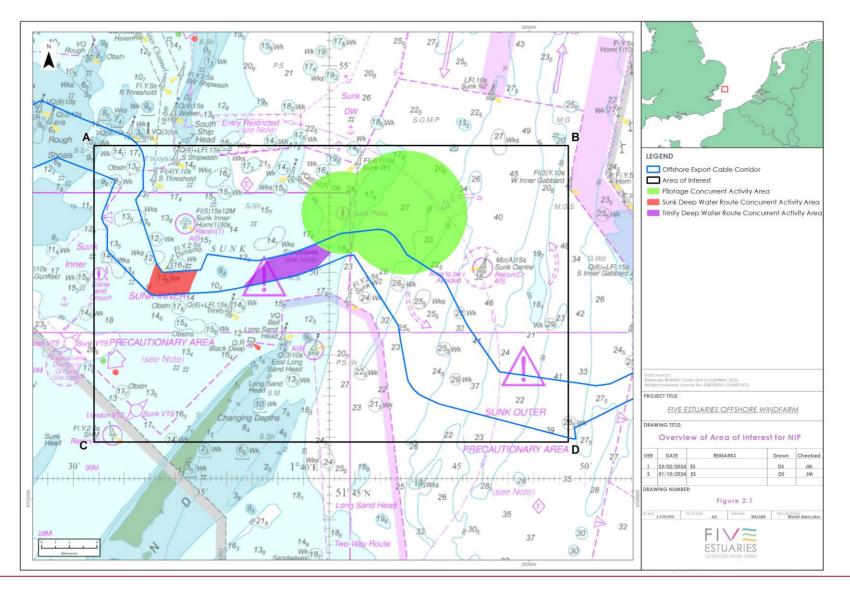


Figure 2.1: Overview of area of interest for NIP (including concurrent working areas).

2.2 VESSEL MOVEMENTS AND ACTIVITIES TYPES

PROJECT VESSELS

- 2.2.1 Installation and maintenance activities considered in this NIP indicatively include:
 - > Pre and post construction surveys;
 - > Unexploded Ordnance (UXO) clearance;
 - > Pre Lay Grapnel Run (PLGR)/ boulder clearance:
 - > Sandwave clearance;
 - > Freespan clearance;
 - > Cable lay/ burial; and
 - Cable repairs/ reburial.
- 2.2.2 This list willmay be updated once the installation method is confirmed in the Cable Specification and Installation Plan (CSIP).

PROJECT RAM VESSELS

- 2.2.3 Some of the vessels listed in Section 2.2.1 may operate under Restricted in their Ability to Manoeuvre (RAM) status.
- 2.2.4 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(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.
 - —Concurrent activities will be managed through the protocols outlined in Section 4.

2.2.32.2.5

THIRD-PARTY VESSELS

- 2.2.42.2.6 The NIP is relevant to all third-party vessel activities within the area of interest, but with particular emphasis on:
 - Deep draught vessels accessing local ports via the recommended deep water routesDWRs 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.
- 2.2.52.2.7 Further details relating to the baseline activities will be added in a future version of the NIP.

2.3 TEMPORAL EXTENT

2.3.1 The NIP will apply from the start of offshore construction activities and associated works for the export cables within the area of interest. The indicative programme of offshore construction activities is presented in Figure 2.2 and includes site preparation works as outlined in Section 2.2.

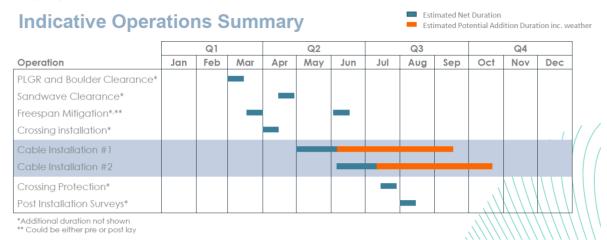


Figure 2.2: Indicative operations summary for offshore construction activities.

- 2.3.2 Within Figure 2.2, the shaded rows indicate those with restricted operations. Other operations (non-shaded) do have more flexibility and could be concurrent with other project activities depending upon vessel availability.
- 2.3.3 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 Plan, noting that the Decommissioning Plan will be secured as a condition in the Deemed Marine Licence (dML).

2.4 NORTH FALLS OFFSHORE WIND FARM

2.4.1 The spatial and temporal extent of the North Falls Offshore Wind Farm ('North Falls') may be included in a future version of the NIP post consent, depending upon the respective timelines for the construction and operation of VE and North Falls.

2.5 INTERESTED PARTIES

- 2.5.1 Consultation relating to shipping and navigation has been ongoing throughout the scoping, Preliminary Environmental Information Report (PEIR), and Environmental Statement (ES) stages of VE 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.
- 2.5.2 Through this consultation, several Interested Parties have been identified:
 - > HHA;
 - >__PLA;
 - > Port of Medway;
 - > London Gateway; and
 - Sunk Vessel Traffic Services (VTS).
- <u>2.5.3</u> Details of how these Interested Parties will be involved in the creation of the NIP is provided in Section 2.6.

- 2.5.4 The approval process for agreeing with NIP is currently being agreeddiscussed and will be included in this section as part of a future revision of the NIP.
- The content of the NIP will be discussed and agreed with the interested parties postconsent (and subsequently submitted to the Marine Management Organisation for approval) with subsequent agreements occurring as required as part of the Planned Protocols outlined in Section 4.
- Where agreement is requested, Interested Parties will have up to 14 days to provide a response in writing, after which time agreement will be deemed to have been given.
- 2.5.3 Where agreement is withheld, clear rationale must be provided to allow VE to address outstanding matters. VE reserve the right to submit the NIP for approval to the MMO, where this is not provided.
- 2.6 UPDATES TO AND DISSEMINATION OF THE NAVIGATION INSTALLATION PLAN
- 2.6.1 As stated in Section 2.3, the NIP will apply throughout the construction and operation and maintenance phases. As VE evolves it may be necessary for the NIP to be updated and with changes disseminated to relevant third-parties. A review of whether the NIP requires updating will be taken periodically or as otherwise agreed with the Interested Parties.
- 2.6.2 Where updates are required, the Interested Parties will be invited by the Applicant to review and discuss any changes, and the updated NIP will then be promulgated to relevant third-parties—which will include London Gateway and Medway in addition to the Interested Parties.
- 2.6.3 Depending upon the nature of any changes to the NIP, it may be necessary to undertake specific training to ensure that relevant third-parties (at all levels) are fully informed.
- 2.6.4 Additionally, the NIP will be provided to the MCA and Trinity House in advance of examination submission to the Marine Management Organisation (MMO).

3 PROJECT VESSEL ACTIVITIES

3.1 INSTALLATION

PRE AND POST SURVEYS

- 3.1.1 Details of pre and post survey activities are provided in Table 3.1. These activities do have flexibility and could be concurrent with other projects. Table 3.1 which represents indicative values with the following list noting variables which may affect final values for the parameters:
 - > TBC (dependent upon nature of activities required)

Table 3.1: Indicative details for pre and post survey activities

Parameter	Indicative details	
Vessel(s) required	TBC	
Spatial extent covered	TBC	
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	TBC	
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	TBC	
Speed when undertaking activity	TBC	
Continuous or discontinuous activity	TBC	
Manoeuvrability	RAM?TBC For example can the vessel move during its operation or in an emergency?	
Traffic management	TBC	
Additional parameters to be added as required		

UXO CLEARANCE

- 3.1.13.1.2 Details of UXO clearance activities are provided in Table 3.2 which. These activities do have flexibility and could be concurrent with other projects. Table 3.2 represents indicative values with the following list noting variables which may affect final values for the parameters:
 - > TBC (dependent upon nature of activities required)

Table 3.2: Indicative details for UXO clearance activities

Parameter	Indicative details
Vessel(s) required	TBC
Spatial extent covered	TBC

Parameter	Indicative details	
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	TBC	
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	TBC	
Speed when undertaking activity	TBC	
Continuous or discontinuous activity	TBC	
Manoeuvrability	RAM?TBC For example can the vessel move during its operation or in an emergency?	
Traffic management	TBC	
Additional parameters to be added as required		

PRE LAY GRAPNEL RUN/ BOULDER CLEARANCE/ MATTRESS INSTALLATION

3.1.23.1.3 Details of PLGR/ boulder clearance/ mattress installation activities are provided in Table 3.3 which. These activities do have flexibility and could be concurrent with other projects. Table 3.3 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	Typical technical considerations: bollard pull, crane or A-frame and contractor experience	
Spatial extent covered	Tow length 150 metres (m)	
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Estimated 14 days total	
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)		
Speed when undertaking activity	Circa 1 knot during operations	
Continuous or discontinuous activity	TBC	

Parameter	Indicative details
Manoeuvrability	For example can the vessel move during its operation or in an emergency?RAM?TBC
Traffic management <u>TBC</u>	
Additional parameters to be added as required	

SANDWAVE CLEARANCE

- 3.1.33.1.4 Details of sandwave clearance activities are provided in Table 3.4. These activities do have flexibility and could be concurrent with other projects. 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	Smaller localised areas will use a mass flow excavator system.	
	Larger areas will use a trailing suction hopper dredger.	
Spatial extent covered	TBC	
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)		
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	Estimated 14 days total	
Speed when undertaking activity	TBC	
Continuous or discontinuous activity	TBC	
Manoeuvrability	For example can the vessel move during its operation or in an emergency?RAM?TBC	
Traffic management	TBC	
Additional parameters to be added as required		

FREESPAN CLEARANCE

- 3.1.43.1.5 Details of freespan clearance activities are provided in Table 3.5. Where localised changes in seabed level result in unintended freespans of cables levelling of seabed (freespan clearance) may be required. These activities do have flexibility and could be concurrent with other projects. Table 3.5 represents indicative values with the following list noting variables which may affect final values for the parameters:
 - > May be required pre and post lay.

Table 3.5: Indicative details for freespan clearance activities

Parameter	Indicative details
Vessel(s) required	TBC
Spatial extent covered	TBC
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Fatimental 20 days total
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	Estimated 28 days total
Speed when undertaking activity	TBC
Continuous or discontinuous activity	Likely discontinuous
Manoeuvrability	For example can the vessel move during its operation or in an emergency?RAM?TBC
Traffic management	TBC
Additional parameters to be added as required	

CABLE LAY/ BURIAL

- 3.1.53.1.6 Details of cable lay/ burial activities are provided in Table 3.6. These activities do not have flexibility and will not be concurrent with other projects. Table 3.6 represents indicative values for an S-lay cable methodology with the following list noting variables which may affect final values for the parameters:
 - > Water depth;
 - > Cable design (weight, load capacity, etc.);
 - > Soils; and
 - > Lay and burial equipment on the seabed.

Table 3.6: Indicative details for cable lay/ burial activities

Parameter	Indicative details
Vessel(s) required	Typical technical considerations: higher capacity to avoid offshore jointing of cable, larger vessel means deeper draught, cable design requirements, contractor experience.
Spatial extent covered	Example layback distance 50 to 150m.
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	General lay/ burial:1.5 to 4.5 days Cable jointing: circa 72 hours
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	General lay/ burial: <i>TBC</i> Cable jointing: circa 72 hours
Speed when undertaking activity	150 to 450m per hour
Continuous or discontinuous activity	<u>TBC</u>
Manoeuvrability	For example can the vessel move during its operation or in an emergency?RAM?
Cable joints	Will be required when installation vessel has insufficient capacity to lay the whole cable.
	Design will depend on the cable and capacity requirements.
Traffic management	TBC
Additional parameters to be added as required	

CABLE PROTECTION AND CROSSINGS

- 3.1.63.1.7 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. In the vicinity of the defined deep water routes it will be ensured that any protection will not compromise maintaining a minimum 20m water depth. The burial depths will be detailed and agreed within the CSIP, noting that an outline version of the CSIP was included in the application submission [(APP-242])).
- 3.1.73.1.8 There is an expectation that cable crossings will be required, most notably with the export cables for North Falls. The location of such crossings cannot be defined in detail at present but will be provided in a later update to the NIP detailed in the final CSIP, post-submission once the Development Consent Order (DCO) limits for the offshore export cable corridor (ECC) for North Falls are confirmed.

- 3.1.83.1.9 Details of cable protection/ crossing activities are provided in Table 3.7 which. These activities do have flexibility and could be concurrent with other projects. Table 3.7 represents indicative values with the following list noting variables which may affect final values for the parameters:
 - > Location and nature of North Falls export cables; and
 - > Soil.

Table 3.7: —Indicative details for cable protection/ crossing activities

Parameter	Indicative details
Vessel(s) required	TBC
Spatial extent covered	TBC
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	Crossing installation: circa 14 days Crossing protection: circa 14 days
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	Crossing installation: circa 14 days Crossing protection: circa 14 days
Speed when undertaking activity	TBC
Continuous or discontinuous activity	TBC
Manoeuvrability	TBC
Traffic management	TBC
Additional parameters to be added as required	

3.2 MAINTENANCE OR REPAIR

CABLE REPAIRS/ REBURIAL

- 3.2.1 Details of cable repairs/ reburial activities are provided in Table 3.8. These activities do not have flexibility and will not be concurrent with other projects. Table 3.8 which represents indicative values with the following list noting variables which may affect final values for the parameters:
 - > TBC (Dependent upon nature of activities required) TBC

Table 3.8:—Indicative details for cable repairs/ reburial activities

Parameter	Indicative details
Vessel(s) required	TBC
Spatial extent covered	TBC
Duration of activity within Sunk Inner Precautionary Area (excluding adverse weather delays)	TBC

Parameter	Indicative details
Duration of activity within Sunk Outer Precautionary Area (excluding adverse weather delays)	TBC
Speed when undertaking activity	TBC
Continuous or discontinuous activity	TBC
Manoeuvrability	For example can the vessel move during its operation or in an emergency? TBC
Cable joints	Will be required when the cable is damaged and requires a repair. Design will depend on the cable and capacity requirements.
Traffic management	TBC
Additional parameters to be added as required	

3.3 THIRD-PARTY VESSEL MOVEMENTS

- 3.3.1 Movements by third-party vessels have been characterised and analysed in detail in the NRA [(APP-240])). Additionally, consideration has been given to the evolution of the baseline during the lifetime of VE.
- 3.3.2 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 Volume 6, Part 2, Chapter 9: Shipping and Navigation [(APP-078)] and Volume 9, Report 10: NRA [[(APP-240)]). Therefore, it is necessary to review third-party vessel movements post consent.
- 3.3.3 Such a review may-will 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 Interested Parties to inform discussions surrounding the NIP.

4 PLANNED PROTOCOLS AND ACTIONS

- 4.1.1 This section provides details of planned protocols and actions which will be implemented for each of the project vessel activities outlined in Section 3.
- 4.1.2 The following elements will be considered prior to the commencement of any of the activities:

4.2 RESTRICTED OPERATIONS

- 4.2.1 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.
- 4.2.2 The HAZOP workshop will consider the following items:
 - > Hazard attendance including 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; and
 - Anything specific to the area of operation i.e. deep water vessel movements, or pilotage operations; and-
 - Any ongoing maintenance dredging being undertaken under The London Gateway Port Harbour Empowerment Order (HEO) 2008.

HAZOP WORKSHOP ATTENDANCE

—<u>Details of parties which should be involved in a HAZOP workshop and the format (in-person/virtual).</u>

4.2.3

NOTIFICATION OF PLANNED ACTIVITIES

- 4.2.4 Process flow chart to be added in consultation agreement with the Interested Parties which will detail how activities within the area of interest will be managed, notifications required, etc. in advance of project vessel activities.
- 4.1.34.2.5 An optional requirement is for the project vessel (those meeting the requirements of paragraph 2.2.4s to 2.2.4) to carry a pilot (or other designated person approved by the interested parties) to provide local information and communicate directly with Sunk VTS and pilotage launches.— 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 interested parties. Who would provide this assistance at the time would be determined based on availability and location.
- 4.1.44.2.6 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.

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

NAVIGATIONAL STATUSCLASSIFICATION OF CONCURRENT

- A.2.7 Navigational status of the project vessels involved in the activities may result in third-party vessels having operational priorities as per the requirements of the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs). As per paragraph 2.2.4, s—to 2.2.4 vessels meeting these requirements (Rule 3(g) i and v) will be restricted from working concurrently (both in terms of VE construction vessels, and those engaged in the construction of North Falls offshore wind farm—and Sea Link as far as reasonably foreseeable) -in concurrent activity areas defined in section 2.1, noting that VE can only control it sown vessels.
- 4.2.8 The following table confirms if concurrent activities are allowed in combination across the concurrent activity areas as shown in Figure 2.1:

Table 4.1 In Combination Concurrent Activities

	Trinity Concurrent Working Area	Sunk Concurrent Working Area
Pilotage Concurrent Working Area	<u>No</u>	<u>Yes</u>
Trinity Concurrent Working Area		<u>No</u>

WEATHER CONSTRAINTS AND DATA

4.2.9 Agreement on weather forecasting data sources to be implemented.

 Discussion required on defined weather limits and associated risks to project vessel and/ or third-party vessel operations, including visibility thresholds (2 nautical miles (nm)).

4.2.10

4.3 CONTINGENCY PLANS

- 4.3.1 Determination of the actions to be taken in an emergency situation including a change in weather or visibility conditions.
- 4.3.2 Thresholds for which activities (including where the project vessel has restricted statuus) may need to be abandoned.

UXO PROTOCOL

- 4.3.3 For operations identifying and/or removing UXO within the Area of Interest additional protocols willmay be required.
- 4.3.4 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. No exclusion zone can or will be put in place by VE for in-situ UXO.

- 4.3.5 The MCA preference is typically not to remove the UXO unless essentially for safety.

 Therefore, the VE OWFL may identify and leave UXO in situ given no danger to shipping. If identified UXO does need removal for safetyconstruction reasons, VE OWFL 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.
- 4.3.6 The relevant authorities are the MMO, MCA (and Sunk VTS) and Trinity House who will consult with local users as required. The MCA have confirmed that information would be promulgated to make users aware, but it is not anticipated that there would be any direct impact on access to the local ports or use of the DWRs.
- 4.3.7 In the extremely unlikely event that identified UXO presents an immediate danger to shipping due to an immediate danger to shipping the MCA will aim for removal within a short space of time to minimise risks, noting that this process it outwith VE's control. As part of the application process discussion will be had with relevant authorities as to the potential use of exclusion zones to maintain safety but ensure minimum disruption. This discussion will include an MCA representative given their authority for implementing exclusions.
- 4.1.54.3.8 Outside of UXO investigations and the defined MMO licensing process, procedures for unexpected UXO identification are also A process for UXO identification will be defined outlined as part in the project Emergency Response and 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 reference to the -and any additional protocols required as part of the NIP aArea of iInterest will be in line with the process already identified.

4.2 RESTRICTED OPERATIONS

4.2.1 For restricted operations 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.

4.3 HAZOP WORKSHOP

4.3.1 Details of parties which should be involved in a HAZOP workshop and the format (inperson/ virtual).

4.4 ADDITIONAL MITIGATION MEASURES

4.4.1 Determination of 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 WEATHER CONSTRAINTS AND DATA

- 4.5.1 Agreement on weather forecasting data sources to be implemented.
- 4.5.2 Discussion required on defined weather limits and associated risks to project vessel and/ or third-party vessel operations, including visibility thresholds (2 nautical miles (nm)).

4.6 CONTINGENCY PLANS

4.6.1 Determination of the actions to be taken in an emergency situation including a change in weather or visibility conditions.

- 4.6.2 Thresholds for which activities (including where the project vessel has restricted status) may need to be abandoned.
- 4.74.5 STAKEHOLDER RESOURCE REQUIREMENTS
- 4.7.14.5.1 Determination of whether any elements of the planned protocol require stakeholder resources above and beyond current manning levels and/or additional VTS functionality.

5 TIMELINE

5.1.1 The proposed timeline for updates to this NIP is outlined in 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 VE and relevant NIP updates

Milestone	Indicative date	NIP updates
Pre meeting with Interested Parties	End January 2024	Initial version.
Follow-up meeting with Interested Parties	Late February / early March 2024	Reviewed version (post submission to address comments).
Pre application	Mid-March 2024	Final outline version.
Follow-up meeting with Interested Parties	End March 2024	Proximity to Sunk pilot boarding station to be discussed.
DCO application	TBCMarch 2024	TBCIncluded Version A of the NIP
Follow-up meeting with Interested Parties	Mid June 2024	Review of application version of the NIP and consideration of concurrent activities.
Examination	TBCSeptember 2024	SIMOPS and resource management to be discussed and consideration given to potential cable crossings. TBC Further updates based on feedback from consultation submitted at Deadline XX1.
Post consent	TBC	TBC
Offshore installation (export cables)	TBC	TBC
Operation and maintenance	TBC	TBC
Offshore decommissioning (export cables)	TBC	Superseded by Decommissioning Plan.



PHONE EMAIL WEBSITE ADDRESS

COMPANY NO

0333 880 5306 fiveestuaries@rwe.com www.fiveestuaries.co.uk

Five Estuaries Offshore Wind Farm Ltd Windmill Hill Business Park Whitehill Way, Swindon, SN5 6PB Registered in England and Wales company number 12292474