NORTH FALLS

Offshore Wind Farm

Outline Sediment Disposal Management Plan (Clean)

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3	July 2025	Deadline 8	NFOW	NFOW	NFOW

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Glossary of Acronyms

dDCO	Draft Development Consent Order
DW	Deep Water
DWR	Deep Water Routes (designated shipping lanes)
ECC	Export Cable Corridor
EACN	East Anglia Connection Node (National Grid connection point)
GBS	Gravity Based Structure
HDD	Horizontal Directional Drill
km	Kilometer (unit of length)
m^3	Cubic meters (unit of volume)
MCAA	Marine and Coastal Access Act
MMO	Marine Management Organisation
MW	Mega watt (unit of power)
NSIP	Nationally Significant Infrastructure Project
OSP	Offshore Substation Platform
OCP	Offshore Converter Platform
SDMP	Sediment Disposal Management Plan
TJB	Transition Joint Bay
WTG	Wind Turbine Generator

1 Introduction

1.1 Project overview

1. The North Falls Offshore Wind Farm project (herein 'North Falls' or 'the Project') is a proposed offshore wind farm located off the coast of Essex. North Falls is the proposed extension to the operational Greater Gabbard Offshore Wind Farm. It will have an overall capacity of greater than 100 Megawatts (MW) and therefore constitutes a Nationally Significant Infrastructure Project (NSIP) under the Section 15 (3) of the Planning Act 2008.
2. The project consists of an array area of 95km^2 and will comprise up to 57 turbines located 40km from the Essex coast. The power from the wind farm will be transmitted via export cables to a National Grid connection point located in the National Grid East Anglia Connection Node (EACN) substation near Lawford, Essex.
3. Power will be transmitted via two cables, and the landfall marks the point where the offshore export cables transition to onshore export cables, and are connected together at a Transition Joint Bay (TJB). The offshore export cable route is approximately 57km long, from edge of array area to the landfall location.

1.2 Background

4. This Outline Sediment Disposal Management Plan (Outline SDMP) is being submitted to The Planning Inspectorate at Deadline 4 in response to relevant representations and stakeholder discussions in relation to dredge and disposal material within the array area and export cable corridor (ECC). This Outline SDMP sets out the key constraints and measures proposed that will be in included in the final Sediment Disposal Management Plan (SDMP) which will be subject to approval by the Marine Management Organisation (MMO).
5. The Marine and Coastal Access Act 2009 (MCAA) Section 66 states that it is a licensable marine activity to carry out any form of dredging and disposal of dredged material in the seabed within the UK. For the purposes of this document, 'disposal' means the deposit of dredged sediment at the sea surface or at the seabed using a fall pipe; or the deposit of subsurface sediment at the seabed released during any construction activity required for the North Falls Offshore Wind Farm. Drill arisings are also considered.

1.3 Purpose of this document

6. This Outline SDMP has been developed to set out the proposed plan and management for disposal of seabed and sub-bottom geological material that may arise during the construction of the offshore elements of North Falls.
7. For the avoidance of doubt this Outline SDMP relates to the construction of the offshore elements of North Falls only (i.e. array area and ECC to landfall).
8. Details on the physical characteristics of the seabed and subsurface material across the offshore project area are presented within ES Chapter 8 Marine Geology, Oceanography and Physical Processes [**APP-022**].

1.4 Sediment Disposal Licence

9. A disposal licence for the sites shown in Figure 2-1 is being applied for from the MMO, informed by the 7.26 Site Characterisation Report Rev 1 (submitted at Deadline 4, [**REP4-013**])**.**

2 Disposal Activities

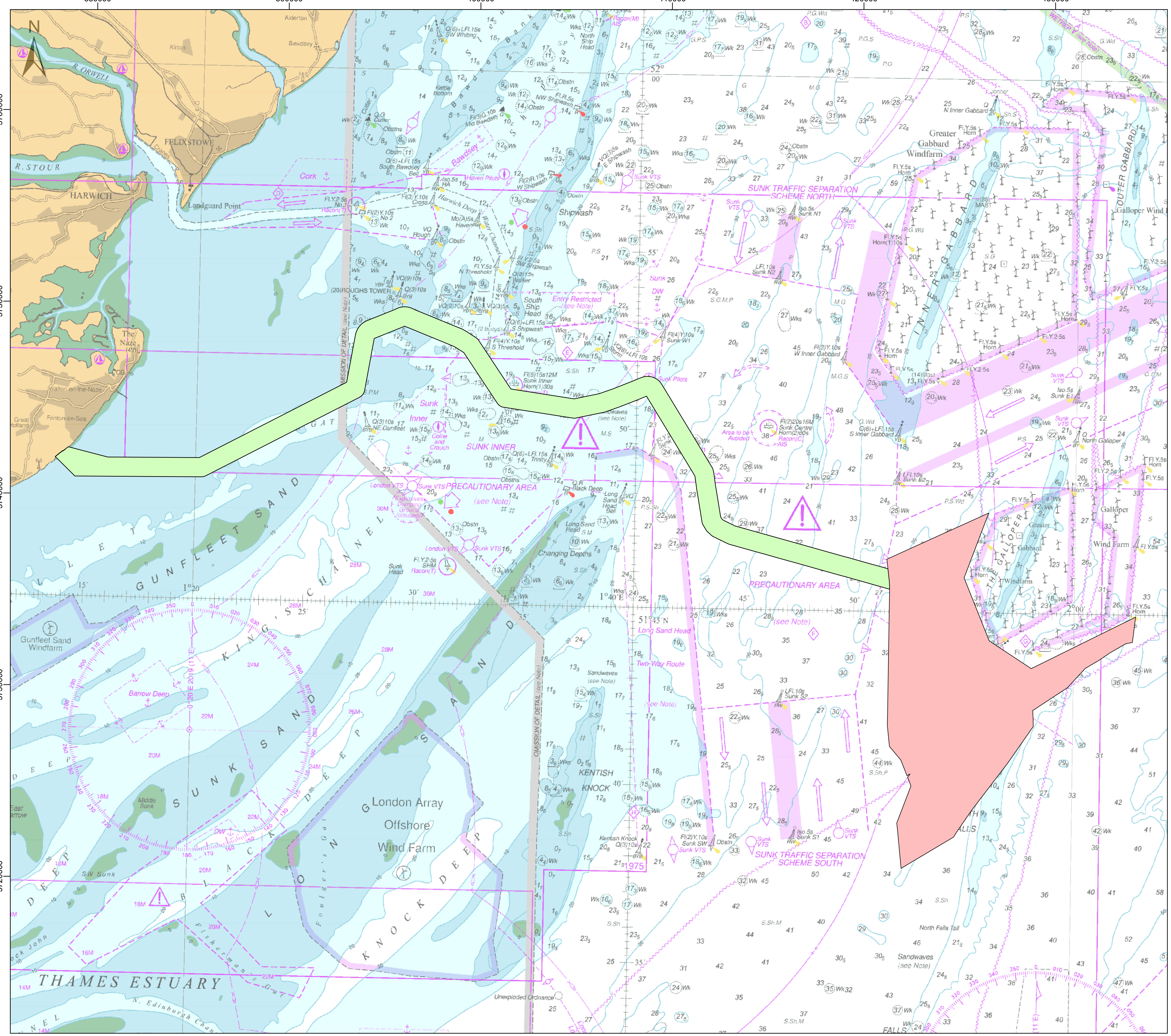
10. During the construction of North Falls, there will be a release of material caused by certain construction activities. Some of these activities will release seabed material into the water column at source, some will need to move it and release it in a different location. This disposal activity will involve the deposit of inert, native sedimentary material originating from the following activities associated with the construction of North Falls but not limited to:

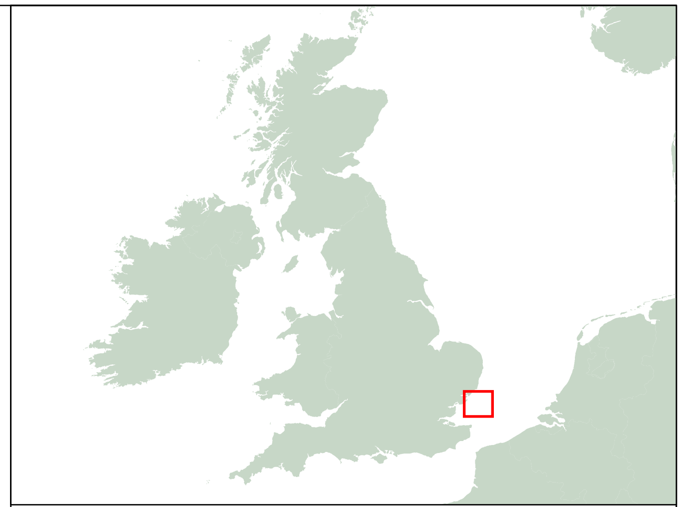
    - Construction drilling;
    - Seabed preparation for foundation works;
    - Cable installation preparation; and
    - Excavation of horizontal directional drilling (HDD) exit pits.

11. Under the deemed Marine Licence, draft Development Consent Order (dDCO) Schedules 8, 9 and 10, Part 1, 2(a), North Falls seeks consent for the disposal of these materials.

12. The disposal site is shown in Figure 2-1.

Figure 2-1 - Disposal site





Legend

- Array Area Disposal Zone
- Offshore Export Cable Disposal Zone

0 1.75 3.5 7 nm

0 2.75 5.5 11 km

Drawing Title

Disposal Zone

Rev	Date	Remarks	Drwn	Chkd
00	28/02/2025	First issue	FC	DR

Drawing Number

NF-M-DES-0025-0028

Scale	Plot Size	Datum	Projection
1:200,000	A3	WGS84	UTM31N

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File ref: E:\NorthFalls\FormalDrawings\Marine\M_Design\NF-M-DES-0025-OffshoreProjectOverview\NF-M-DES-0025.aprx

2.1 Disposal Zones

13. As shown in Figure 2-1, the red line boundary has been separated into two disposal zones. These are the array area and the offshore export cable area. Any material dredged from the offshore export cable area may be deposited in either disposal zone, subject to the conditions set out in Section 3 of this document. Any material dredged from the array area will only be disposed of in the array area, subject to the conditions set out in this document.

2.2 North Falls Offshore Wind Farm array area

14. The volumes of material generated in the array area from seabed preparation for foundation works, pile drilling and cable installation preparation are summarised in Table 2-1. The volume for seabed preparation for wind turbine generator (WTG) and offshore substation (OSP)/offshore converter stations (OCP) foundations is based on the seabed preparation required for suction bucket jackets as a worst case. It should be noted that GBS have been removed from the dDCO and hence the values associated with GBS are no longer applicable, hence have not been considered.

Table 2-1 - Maximum parameters for seabed disturbance in the Array area

	Volume of material generated (m^3)
Maximum seabed preparation for WTG foundations (excluding scour protection)	1,040,625
Maximum seabed preparation for OSP/OCP foundations (excluding scour protection)	38,485
Maximum drill arisings for WTG foundations and OSP/OCP foundations)	46,179
Maximum sand wave levelling for array cables	21,368,258
Maximum sand wave levelling for platform interconnector cable	718,240

2.3 North Falls Offshore Wind Farm export cable area

15. The volumes of material generated in the offshore export cable area for sandwave clearance and export cable installation are shown in Table 2-2.

Table 2-2 - Maximum parameters for seabed disturbance in the Export Cable area

	Volume of material generated (m^3)
Maximum seabed preparation for export cable installation	4,383,260

3 Sediment Disposal Constraints

16. The worst-case scenario as presented in Table 2-1 and Table 2-2 outline the total volume of material that may be generated. A total of 23,211,787m^3 of seabed material could be generated in the array area, and 4,383,260m^3 could be generated in the export cable area. This gives a total of 27,595,047m^3 of material generated that will need to be disposed of.

17. This disposal of sediment will be distributed across the entire red line boundary. However, following ES assessments and stakeholder discussions there are a number of constraints that limit the distribution of this material across these disposal sites. It should be noted however, that the maximum volume of material requiring disposal, 27,595,047m^3, will not be exceeded regardless of the distribution scenario.

18. This section of the Outline SDMP sets out the constraints proposed for implementation by North Falls during the construction phase.

3.1 Restriction on disposal within the Deep Water Routes within the offshore cable corridor

19. The export cables will need to cross the Sunk Deep Water and Trinity Deep Water routes (DWRs) that are shipping lanes into London Ports. Concerns have been raised by the London Ports to prevent a limitation on the future case of larger vessels requiring deeper dredge depths for keel clearance, in turn requiring deeper cable burial in this vicinity. The locations for deeper burial are shown as the buffers from the "Sunk A – Sunk DW Buffer", "Sunk B – Sunk DW buffer", "Trinity - Trinity DW buffer" and "Sunk Pilotage Area – Sunk Pilot Diamond Buffer" on the Deep Water Route Cable Installation Areas (Future Dredging Depths) Plan**[REP6-055]**.

20. In order to install the export cables across these deep water routes, it may be necessary for North Falls to undertake localised dredging, which will produce material for disposal. Shipping and navigation stakeholders raised concern in relation to this as the disposal sites cover the entire red line boundary. Therefore, material could not be deposited in the Deep Water Routes.

21. In response to this concern, all disposal material that is created from construction activities will not be disposed of within the areas proposed for the deeper burial of the export cable ("Sunk A – Sunk DW Buffer", "Sunk B – Sunk DW buffer", "Trinity - Trinity DW buffer" and the Sunk Pilotage Area) shown on the Deep Water Route Cable Installation Areas (Future Dredging Depths) Plan **[REP6-055]**or within areas where material could migrate into these areas.

3.2 Avoidance of disposal in proximity to Pilot Boarding area

22. Similar to the concerns in Section 3.1, there is concern from navigation stakeholders that dredge material created as a result of construction activities would be deposited in the vicinity of the sunk pilot diamond area. The concern specifically relates to there being a reduction in navigable depth should material be disposed of within the "Pilot Boarding Station buffers" shown on the Deep Water Route Cable Installation Areas (Future Dredging Depths) Plan as submitted at Deadline 6.

23. In response to this concern all disposal material that is created from construction activities will not be disposed of within the areas around the Sunk Pilotage Area – Sunk Pilot Diamond Buffer as shown on the Deep Water Route Cable Installation Areas (Future Dredging Depths) Plan as submitted at Deadline 6, or within areas where material could migrate into this area.

3.3 Clay disposal

24. To achieve cable burial depths required by shipping and navigation stakeholders, there may be a need to dredge in areas of the ECC, this detail will be added post-consent following further engineering work.

25. Within the DWRs areas, London Clay is present. As set out in Section 3.1 North Falls has committed to not dispose of material within these DWRs and, as stated in Section 3.2, is seeking to not reduce navigable depth within the pilot boarding area through avoiding the disposal of material in this area. The clay material produced from the Deep Water Routes would therefore need to be disposed within a different section of the disposal site (including consideration of using existing, historical disposal sites in the area or for use in land reclamation or other project that requires the use of such material).

3.4 Environmental Principles

3.4.1 Avoidance of disposal in proximity to sensitive benthic habitats

26. Sediment would not be disposed of within 50m of Annex I reef identified during the pre-construction surveys, where practicable, in accordance with the Outline Project Environmental Management Plan, Annex A [**REP3-011/12**].

27. Disposal of any dredged sediment will be at a distance that is greater than 1km from the KKE MCZ to allow natural sedimentary processes to continue unaffected.

3.4.2 Archaeological Exclusion Zones

28. Sediment disposal will comply with the Outline Offshore Written Scheme of Investigation [**REP3-015/016**].

3.4.3 Other considerations

29. Any offshore disposal of dredged sediment will take place in the vicinity of the disposal location, where practicable and subject to the constraints described in Sections 3.1 and 3.2.

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HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm Limited

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

To contact please email contact@northfallsoffshore.com