FIVE ESTUARIES
OFFSHORE WIND FARM

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PRELIMINARY ENVIRONMENTAL INFORMATION REPORT

VOLUME 5, ANNEX 10.3: OFFSHORE ACTIVITIES ASSESSMENT

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FIVE ESTUARIES OFFSHORE WIND FARM

Preliminary Environmental Information Report

Annex 10.3 of Volume 3, Chapter 10: Offshore Activities Assessment

Prepared for: Five Estuaries Wind Farm Ltd

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DOCUMENT REFERENCES

TABLES

DEFINITION OF ABBREVIATIONS AND ACRONYMS

Term	Definition
CTV	Crew Transfer Vessel
EIA	Environmental Impact Assessment
LAQM	Local Air Quality Management
O&M	Operation and Maintenance
PINS	Planning Inspectorate
PM	Particulate Matter
VE	Five Estuaries Offshore Windfarm
WTG	Wind Turbine Generator

1.0 Offshore Activities Assessment

1. The scope of the assessment is to understand potential onshore air quality impacts arising from offshore activities generated by Five Estuaries Offshore Windfarm (VE), during all stages of development. This is in response to the Planning inspectorate (PINS) comments contained within the Scoping Opinion (PINS, 2021).
2. The offshore wind farm array is located 37 km off the coast, at its closest. Activities occurring at the array (construction, operational and decommissioning) are highly unlikely to cause onshore impacts – given the separation distance and dispersal of emissions. However, offshore activities which do interact with onshore receptors have the potential to cause onshore impacts. These include:

   - Marine vessel movements; and
   - Helicopter movements.

3. Information used for the purposes of informing the offshore activity assessment is consistent with values provided within Volume 2, Chapter 1: Offshore Project Description. Each assessment is discussed in turn.

2.0 Vessel Emissions

4. Consideration has been given to the extent of vessel movements generated by VE, during all stages of development, and the likelihood for a significant effect to arise. The scope of the assessment comprises the following:

- Review of the baseline environment, including:
  - Existing vessel movements;
  - Current marine vessel emissions regulations; and
  - Baseline and future baseline conditions.
- Vessel emissions screening assessment, including:
  - Review of sensitive onshore receptors; and
  - Comparison of the extent of predicted marine vessel movements associated with all stages of VE with reference to screening thresholds to determine whether further assessment is required.

2.1 Assessment Methodology

5. The screening of vessel emissions has been undertaken in accordance with Defra's LAQM.TG(22). Within LAQM.TG(22), further assessment of vessel emissions is recommended where:

- There are more than 5,000 large ship movements[1] per year, with relevant exposure within 250 m of berths and main areas of manoeuvring; or
- There are more than 15,000 large ship movements per year, with relevant exposure within 1 km of these areas.

6. The screening thresholds indicate that sensitive receptors up to 1 km from vessel movements can be affected by vessel emissions. The offshore wind farm array is located at the closest 37 km off the coast of England. Given the separation distance, vessel movements associated with all phases of VE are therefore only likely to interact with onshore sensitive receptors where they are:

- Used to facilitate the installation, maintenance and decommissioning of cabling infrastructure at landfall; and/or
- Exiting/entering a port.

7. The specific port location(s) to be utilised by vessels are yet to be determined, however all movements will be compliant/ included within the port's capacity analysis undertaken in support of their consent. Therefore, further consideration of vessels exiting/entering a port has not been given.

8. The focus of this assessment thus relates to the potential extent of vessels used to facilitate the installation, maintenance and decommissioning of cabling infrastructure at landfall and their interaction with onshore sensitive receptors. In relation to this, the majority of vessel movements affecting these receptors would occur in the construction phase (and potentially the decommissioning phase, if infrastructure is not left in situ). Nearshore activities during O&M are expected to be very limited, relating to cable maintenance for example.

[1] Cross-channel ferries, roll on-roll off ships, bulk cargo, container ships, cruise liners, etc – one ship generating two movements (arrival and departure).

9. In recognition of the current optionality with regards to the landfall options, all scenarios have been assessed – i.e. assuming nearshore vessel movements occur within 1 km of both locations. This ensures that all potential scenarios and associated impacts have been assessed.
10. Vessel movements used within this assessment derive from values provided within Volume 2, Chapter 1: Offshore Project Description. As described in the chapter, flexibility in wind turbine generator (WTG) choice is required to ensure that anticipated changes in available technology and project economics can be accommodated within the project design. Therefore, the chapter details the extent of vessel movements predicted to occur in relation to both WTG scenarios assessed by the Environmental Impact Assessment (EIA) (up to 41 large, or up to 79 smaller WTGs are planned for VE). These scenarios represent the maximum and minimum realistic worst-case scenarios against which environmental effects have been assessed. The use of these scenarios provides sufficient confidence in the assessment outcomes.

2.2 Baseline Environment

11. The offshore elements of VE are located within the North Sea, an area already characterised by a high volume of shipping traffic including large ships/tankers.
12. Offshore vessel movements associated with VE would represent a small number of overall vessel traffic in comparison (particularly smaller vessels) and therefore accounts for a small proportion of total North Sea emissions. Further information is provided within Volume 2, Chapter 9: Shipping and Navigation.

2.2.1 Current and Future Regulation

13. Vessel emissions within the North Sea are regulated by legislation. The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention for the regulation of emissions from vessels. MARPOL Annex VI, first adopted in 1997, limits the main air pollutants contained in ships exhaust gas, notably sulphur oxides (SO_X) and NO_X.
14. In 2005 the MARPOL Annex VI was revised with the aim of strengthening the emission limits in light of technological improvements and implementation experience. This was adopted in 2008. The revised MARPOL Annex VI introduced a globally progressive reduction of SO_X, NO_X, and particulate matter emissions from vessels alongside discrete emission control areas (ECAs) where more stringent limits apply. The North Sea is a designated ECA under MARPOL Annex VI, where the following limits apply:

    - 0.1% sulphur fuel content limit. The sulphur limit for international waters is 0.5%; and
    - Vessels which comply with the most stringent NO_x emission limit (Tier III). Tier II standards apply outside of ECAs.

15. Vessel emission restrictions are expected to tighten in future years, following the availability and introduction of cleaner technologies and fuels, alongside policy such as the Maritime 2050 and Clean Maritime Plan. These policies provide a strategy for the transition to zero emission shipping within the UK. Therefore, emission contributions from vessel emissions are expected to reduce even further. These projections are evidenced in 2.2.2.

2.2.2 Background Pollutant Concentrations

16. As discussed in Volume 3, Chapter 10: Air Quality, Defra maintains a nationwide model of existing and future background annual mean air quality concentrations at a 1 km grid square resolution. A review of annual mean background concentrations provided by Defra for the pollutants of principal importance in relation to shipping has been undertaken to provide an indication of sensitivity of the study area to pollutant concentration changes.
17. Consideration has been given to pollutant concentrations reported for the first year of proposed activities associated with each phase of the Project (where available), comprising:

- 2027 – the earliest potential year main construction will commence; and
- 2030 – the first year of operation (used to characterise decommissioning baseline conditions as well).

18. Pollutant concentrations for the year of 2022 have also been provided as a comparison – to inform the evolution of the baseline.

19. The current version of Defra's background concentration estimates (2018 reference year) extends up to 2030. 2030 has therefore been used for the purposes of characterising baseline conditions for the decommissioning phase. This is likely to be conservative, in consideration of the forecast improvements to air quality (associated with the introduction of policy and cleaner emission technologies/restrictions). Baseline concentrations anticipated during the decommissioning phases are expected to lower in comparison to those reported.

20. Consideration of the first year of proposed activities associated with each phase of the Project for the purposes of characterising baseline conditions is likely to be conservative, in recognition of the forecast improvements to air quality. However, this approach ensures all potential impacts are assessed throughout the lifespan of the Project.

21. Defra's dataset includes annual average concentration estimates for NO_x, NO_2, PM_{10} and $PM_{2.5}$ using a reference year of 2018 (the year in which comparisons between modelled and monitoring are made), which are projected up to the year 2030. Annual mean background concentrations of carbon monoxide (CO) and sulphur dioxide (SO_2) are also available, however relate to 2001. These values are therefore likely to be overly conservative in consideration of concentrations anticipated throughout the Project. This is because background CO and SO_2 concentrations are likely to have reduced since 2001 (and continue to do so in the future), following the introduction of policy and lower emission technologies (discussed in Section 2.2.1),

22. As justified in Section 2.1, consideration has been given to onshore locations within 1 km of potential nearshore vessels movements at the offshore vs. onshore interface i.e., where vessels are used to facilitate the construction and decommissioning of onshore infrastructure (cable laying and landfall infrastructure). The maximum annual mean background concentrations for each relevant pollutant considered, based on the 1km grid squares which cover the onshore study area are provided in Table 2.1. The corresponding AQALs and Critical Levels are provided as a comparison, where available.

Table 2.1
Maximum Defra Mapped Background Pollutant Concentration Estimates

Pollutant		Year	Annual Mean Concentration (µg/m^3)	
			Maximum Background	AQAL or Critical Level
Nitrogen Oxides	NO_X	2022	10.3	30
		2027	8.8	
		2030	8.3	
Nitrogen Dioxide	NO_2	2022	8.0	40
		2027	6.9	
		2030	6.5	
Particulate Matter	PM_{10}	2022	14.0	40
		2027	13.5	
		2030	13.6	

Pollutant		Year	Annual Mean Concentration (µg/m³)	
			Maximum Background	AQAL or Critical Level
Particulate Matter	$PM_{2.5}$	2022	8.5	25
		2027	8.1	
		2030	8.1	
Sulphur Dioxide	SO_2	2001	5.4	10/ 20 (A)
Carbon Monoxide	CO	2001	231.0	-

Table notes:
(A) 10µg/m³ where lichens or bryophytes are present, 20µg/m³ where they are not present.
(B) 2018 reference datasets: NOx, NO_2, PM_{10} and $PM_{2.5}$
(C) 2001 reference datasets: SO_2, CO

23. The maximum background concentrations reported for the onshore locations likely to be affected by nearshore vessel emissions are below the corresponding AQALs and Critical Levels for all phases of the Project. Reported maximum 2001 concentrations of SO_2 and CO are likely to be greater in comparison to those anticipated during the Project – as do not take into account any improvements beyond 2001 (i.e. introduction of cleaner emission technologies and restrictions). A large headroom exists between projected annual mean pollutant background concentrations and the corresponding AQALs/Critical Levels at locations where offshore vessel movements are most likely to interact with onshore sensitive receptors. The likelihood of vessel emission pollutant contributions to cause an exceedance of the AQALs/Critical Levels is therefore low. The sensitivity of the study area with respect to pollutant concentration changes is therefore low.

24. Furthermore, baseline concentrations anticipated during the decommissioning phases are expected to be lower in comparison. This is largely driven by the legislative and policy interventions which target emissions reductions alongside the introduction of cleaner technologies (discussed in Section 2.2.1). These forecast improvements are reflected within Table 2.1 where the maximum background concentrations across the study area largely decrease in future years.

2.3 Vessel Emissions Screening Assessment

2.3.1 Review of Onshore Sensitive Receptors

25. In recognition of the local air quality management (LAQM).TG(22) screening thresholds, a review of onshore coastal sensitive (human and ecological) receptors located within 1 km of potential nearshore vessel movements generated by the Project (at the locations of the onshore vs. offshore interface) has been undertaken. Outcomes of this exercise will be used to indicate whether exposure exists, and further assessment is required.

26. In recognition of the current optionality with regards to the landfall options, sensitive receptors up to 1 km from all onshore vs. offshore interfaces have been assessed (i.e. assuming nearshore vessel movements occur at all locations) – as illustrated in Appendix A of this document. This ensures that all potential scenarios and associated impacts have been assessed.

27. For the purposes of defining the onshore study area (the potential area affected by nearshore vessel emissions), a 1 km onshore buffer from the onshore vs. offshore interfaces has been established. This theoretically assumes that vessel movements at the onshore vs. offshore interfaces occur up to the point of the coastline – irrespective of logistical constraints (i.e. shallow water). This is considered conservative – as increases the spatial extent of the onshore study area – as vessels movements are likely to occur some distance from the coast, given logistical constraints.

Human Receptors

28. Table 2.2 details the extent of human receptors located within 1 km of potential nearshore vessel movements generated by VE.

Table 2.2
Details of Human Receptors Within 1 km of Potential Nearshore Vessel Activities

Affected Area/ Properties
Residential properties off Second Avenue
Residential properties off Haven Avenue
Residential properties off Manor Way

29. Human receptors are found within 1 km of potential nearshore vessel movements generated by VE. Further assessment in relation to human receptors is therefore required.

Ecological Receptors

30. Table 2.3 details the extent of ecological designations located within 1km of potential nearshore vessel movements. These locations are illustrated in Appendix A of this document.

Table 2.3
Details of Ecological Designations Within 1 km of Potential Offshore Activities

Site Name	Designation
Holland Haven Marshes	SSSI
Holland Haven Marshes	LNR

31. Ecological receptors are found within 1 km of potential nearshore vessel movements generated by VE. Further assessment in relation to ecological receptors is therefore required.

2.3.2 Construction Phase Assessment

32. The LAQM.TG(22) screening criteria relates to the number of large ships movements per year; however, the extent of predicted construction vessels numbers for VE provided in Volume 2, Chapter 1: Offshore Project Description relates to the total number of round trips. In order to derive the number of vessel movements per year for each phase, the total number of vessels movements (round trips) has been multiplied by two.
33. The number of predicted construction vessels movements relates to the extent of vessels generated throughout the whole construction period. The construction period is expected to last longer than 1 year. To increase the confidence in the screening exercise and minimise the use of assumptions, the total number of construction vessel movements estimated to occur throughout the whole construction phase has been used. This is believed to be conservative as the screening thresholds relate to the number of vessel movements permitted to occur in an annual period. Actual annual movements are believed to be lower than those values used for screening.
34. Construction vessel movements have been categorised based upon their likelihood to occur within 250 m or 1 km of an onshore sensitive receptor located in proximity of construction works to be consistent with the LAQM.TG(22) screening thresholds. Outcomes of this exercise are documented within Table 2.4.

Table 2.4
Extent of Construction Vessels and Likelihood to Interact With Onshore Sensitive Receptors

Vessel Type	Vessel Movements Likely to Occur Within 250m of on an Onshore Sensitive Receptor?	Vessel Movements Likely to Occur Within 1km of on an Onshore Sensitive Receptor?
Scour Layers Vessel	No	No
Gravity Base Foundation Ballast Vessel	No	No
Foundation Installation Spread	No	No
Transition Piece Installation	No	No
WTG Installation Spread	No	No
Commissioning Vessels	No	No
Accommodation Vessels	No	No
IA Cable Vessels	No	No
IA Rock Berm Vessels	No	No
Export Cable Vessels	**Yes**	**Yes**
Export Cable Rock Berm Vessels	**Yes**	**Yes**
Landfall Cable Installation Vessels	**Yes**	**Yes**
Substation Installation Vessels Topside	No	No
Substation Installation Foundation	No	No
Other Vessels	No	No

35. Export cable vessels and landfall cable installation vessels will be used to facilitate the construction of onshore infrastructure. It is therefore assumed that these vessel movements will occur within 250 m and/or 1 km of a sensitive onshore receptor at the location of the offshore vs. onshore interface (see Section 2.3.1). All other vessels will predominantly be used to facilitate the construction of offshore infrastructure. The offshore wind farm array is located at the closest 37 km off the coast. It is highly unlikely that vessel movements used in the construction of the offshore array will therefore occur within 250 m and/or 1 km of the offshore vs. onshore interface.

36. Table 2.5 details the extent of construction vessel movements likely to occur within 250 m and/or 1 km of the offshore vs. onshore interface, in comparison to LAQM.TG(22) screening thresholds to determine whether further assessment is required.

37. It should be acknowledged that the LAQM.TG(22) screening thresholds relate explicitly to large ship movements which comprise cross-channel ferries, roll on-roll off ships, bulk cargo, container ships and cruise liners. Vessels used to facilitate the construction of onshore infrastructure (within 250 m and/or 1 km of onshore works) are unlikely to represent large ships, given the nature and location of works. For the purposes of facilitating an assessment, it has been assumed that all vessels will comprise large ships. Use of this assumption is therefore considered to be overly conservative – and increases the confidence in the overall assessment outcomes.

Table 2.5
Total Number Construction Vessel Movements Likely to Occur Within Proximity of an Onshore Receptor

Vessel Type	Vessel Movements (Round Trips)		Vessel Movements (A)	
	Small WTG	Large WTG	Small WTG	Large WTG
Export Cable Vessels	32	32	64	64
Export Cable Rock Berm Vessels	1,044	1,044	2,089	2,089
Landfall Cable Installation Vessels	0	0	0	0
Total	1,076	1,076	2,153	2,153
LAQM.TG(22) Screening Criteria	**Exposure Within 250 m**		**5,000**	
	Exposure Within 1 km		**15,000**	

Note:
(A) The total number of vessels movements (round trips) has been multiplied by two to calculate the total number of movements (one ship generating two movements).

38. The total number of vessel movements estimated to occur throughout the construction phase (up to 3 years) within 250 m and/or 1 km of onshore sensitive receptors (at locations of the offshore vs. onshore interface) are below the LAQM.TG(22) screening thresholds, despite the overly conservative assessment methodology applied. Actual annual movements are believed to be lower than those values used for screening. Furthermore, offshore construction works are expected to last up to 3 years, and as such impacts are believed to be temporary, with no long-term deterioration of conditions.

39. Whilst taking the above into account, in conjunction with baseline conditions discussed in Section 2.1, impacts from vessel emissions associated with the construction phase are not considered to be significant. Further assessment is therefore not required.

2.3.3 Operational & Maintenance Phase Assessment

40. Vessels will mainly be used for the maintenance of the offshore wind farm array - located 37 km off the coast, at its closest. Vessels may be used for unplanned maintenance including cable replacement, which could occur close to the shore. No extensive (planned) nearshore activities are expected to be required in the operational phase.

41. O&M vessel movements detailed within Volume 2, Chapter 1: Offshore Project Description have been categorised based upon their likelihood to occur within 250 m and/or 1 km of onshore works (and therefore a sensitive onshore receptor). Outcomes of this exercise are documented within Table 2.6.

Table 2.6
Extent of O&M Vessels and Likelihood to Interact with Onshore Sensitive Receptors

Vessel Type	Likely To Occur Within 250m of an Onshore Sensitive Receptor/ Onshore Works	Likely To Occur Within 1km of an Onshore Sensitive Receptor/ Onshore Works
Jack-Up vessels	No	No

Vessel Type	Likely To Occur Within 250m of an Onshore Sensitive Receptor/ Onshore Works	Likely To Occur Within 1km of an Onshore Sensitive Receptor/ Onshore Works
Service Operations Vessels	No	No
Small O&M Vessel (CTV)	No	No
Lift Vessels	No	No
Cable Maintenance Vessels	**Yes**	**Yes**
Auxiliary Vessel	**Yes**	**Yes**

42. Cable maintenance vessels and auxiliary vessels (where used to support the cable maintenance vessels) have the potential to occur within 250 m and/or 1 km of the onshore works and therefore a sensitive onshore receptor. All other vessels will predominantly be used to facilitate the maintenance of offshore infrastructure. The offshore wind farm array is located at the closest 37 km off the coast. It is highly unlikely that vessel movements used for the maintenance of offshore infrastructure will therefore occur within 250 m and/or 1 km of the offshore vs. onshore interface.

43. Table 2.7 details the extent of operations and maintenance (O&M) vessel movements likely to occur within 250 m and/or 1 km of the offshore vs. onshore interface, in comparison to LAQM.TG(22) screening thresholds to determine whether further assessment is required.

44. It should be acknowledged that the LAQM.TG(22) screening thresholds relate explicitly to large ship movements which comprise cross-channel ferries, roll on-roll off ships, bulk cargo, container ships and cruise liners. O&M vessels (located within 250 m and/or 1 km of onshore works) are unlikely to represent large ships, given the nature and location of works. For the purposes of facilitating an assessment, it has been assumed that all vessels will comprise large ships. Use of this assumption is therefore considered to be overly conservative – and increases the confidence in the overall assessment outcomes.

Table 2.7
Number O&M Vessel Movements Likely to Occur Within Proximity of an Onshore Receptor

Vessel Type	Vessel Movements (Round Trips)		Vessel Movements [A]	
	Small WTG	Large WTG	Small WTG	Large WTG
Export Cable Vessels	1	1	2	2
Auxiliary Vessel	64	64	128	128
Total	1	1	130	130
LAQM.TG(22) Screening Criteria	**Exposure Within 250 m**		**5,000**	
	Exposure Within 1 km		**15,000**	

Note:
(A) The total number of vessels movements (round trips) has been multiplied by two to calculate the total number of movements (one ship generating two movements).

45. Estimated vessels movements likely to occur within 250 m and/or 1 km of onshore sensitive receptors (at locations of the offshore vs. onshore interface), are below the LAQM.TG(22) screening thresholds, despite the overly conservative assessment methodology applied.

46. Whilst taking the above into account, in conjunction with baseline conditions discussed in Section 2.1, emissions from vessel emissions associated with the O&M phase are not considered to be significant. Further assessment is therefore not required.

2.3.4 Decommissioning Phase Assessment

47. Details surrounding the decommissioning phase are yet to be fully clarified. In addition, it is also recognised that policy, legislation and local sensitivities evolve, which will limit the relevance of undertaking an assessment at this stage.

48. Decommissioning activities are expected to occur for up to three years. Decommissioning activities are not anticipated to exceed the construction phase worst case criteria assessed and impacts are likely to be lesser in comparison, given the following:

- Landfall infrastructure is expected to be left in situ where appropriate, to abate potential future impacts and minimise the extent of decommissioning activities;
- Vessel emission restrictions are expected to tighten in future years and in the interim before decommissioning activities occur (>25 years). This forecast is based on the introduction and availability of cleaner technologies and fuels, alongside legislation – as detailed in Section 2.1. Therefore, emission contributions from vessel emissions generated during the decommissioning phase are expected to be lower in comparison; and/or
- Air quality is expected to improve in future years, and in the interim before decommissioning activities occur (>25 years). This forecast is based on the introduction of policy and legislation, and availability of cleaner technologies. The likelihood of a significant effect arising during the decommissioning phase is therefore low.

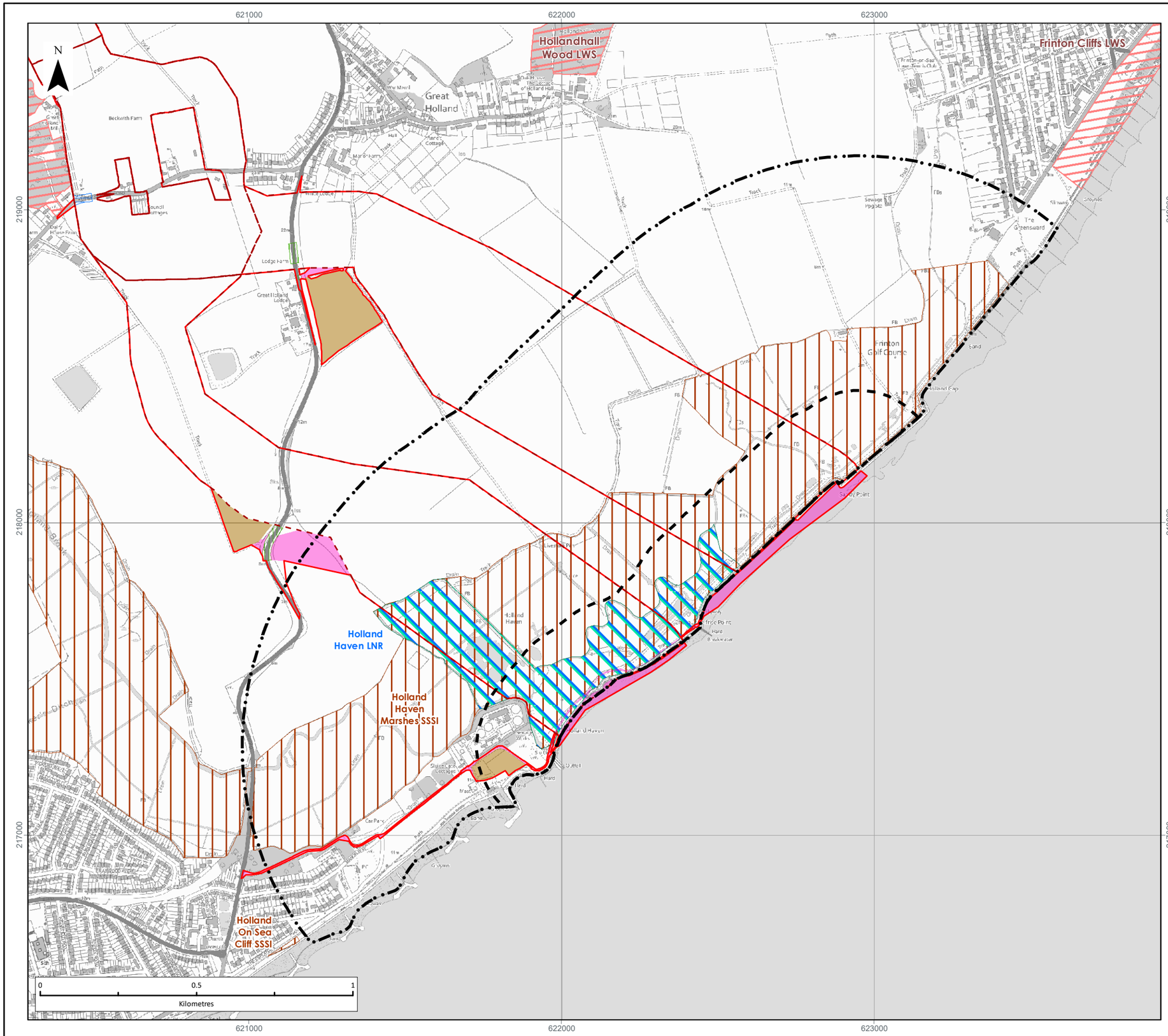
49. These elements (alone and/or in combination) would result in a reduction in the level of significance in comparison to the assessment of construction effects. The outcomes of the construction phase assessment indicate that impacts from vessel emissions on sensitive onshore receptors are not significant. Further assessment in relation to the decommissioning phase is therefore not required – and effects are believed to be not significant.

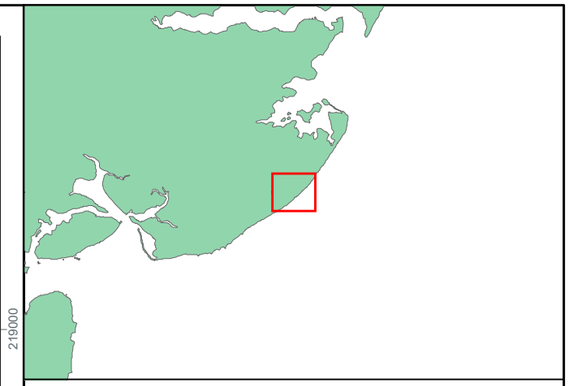
50. Nonetheless, the decommissioning methodology would be finalised nearer to the end of the lifetime of VE, to be in line with current guidance, policy and legislation. Any such methodology would be agreed with the relevant authorities and statutory consultees.

3.0 Helicopter Emissions

51. Consideration has been given to the extent of helicopter movements generated by VE, during all stages of development, and the likelihood for a significant effect on onshore sensitive receptors to arise.
52. In all phases of the Project, helicopters will use an existing onshore base/ helipad; all movements will be compliant/ in line with the relevant helipads operational constraints and management plans. The increased number of helicopter movements at the existing helipad will still likely be under the maximum assessed capacity of the existing onshore base/ helipad.
53. Up to 530 two-way movements by up to two helicopters may be undertaken on an annual basis during the construction and decommissioning phases, respectively. Impacts during these stages are believed to be temporary, with no long-term deterioration of conditions. However, the extent of impacts associated with the decommissioning phase are likely to be lesser in comparison, given the potential for infrastructure to remain in situ, forecast improvements to air quality and introduction of cleaner emission technologies.
54. During the operational phase, helicopters will only be used for crew transfer during unplanned maintenance where crew transfer vessel (CTV) access is not possible. Up to 125 two-way movements helicopter trips per year may be required.
55. In consideration of the above, the likelihood for potential effects to occur are considered unlikely given the frequency of use, transient exposure and separation distances from emission sources to receptors. Further consideration of helicopter emissions has therefore been screened out for all phases of the Project, and effects can be concluded as not significant.

APPENDIX A: VESSEL EMISSIONS AFFECTED AREAS





LEGEND

- Onshore Red Line Boundary
- Onshore Export Cable Route
- Temporary Construction Compounds
- Works Access Required
- Haul Road Crossings
- Haul Road Access
- 250 m Study Area
- 1 km Study Area
- Affected Local Nature Reserve (LNR)
- Affected Site of Special Scientific Interest (SSSI)
- Affected Local Wildlife Site (LWS)

PROJECT TITLE:

FIVE ESTUARIES OFFSHORE WINDFARM

DRAWING TITLE:

Vessel Emissions Affected Areas

VER	DATE	REMARKS	Drawn	Checked
1	21/02/2023	PEIR Submission	DB	JS

DRAWING NUMBER:

FIGURE 10.6

SCALE:	PLOT SIZE:	DATUM:	COORDINATE SYSTEM:
1:12,500	A3	OSGB 1936	British National Grid

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