

Sea Link

Volume 7: Other Documents

Document 7.5.6.2 Outline Air Quality Management Plan - Kent

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Version History

<u>Date</u>	<u>Issue</u>	<u>Status</u>	<u>Description/Changes</u>
<u>March 2025</u>	<u>A</u>	<u>Final</u>	<u>For DCO Submission</u>
<u>January 2026</u>	<u>B</u>	<u>Final</u>	<u>Update to reflect changes made to the Outline Air Quality Management Plan - Suffolk</u>

Executive Summary

- Ex1.1.1 The purpose of this Outline Air Quality Management Plan (oAQMP), which forms **Application Document 7.5.6.2 Air Quality Management Plan – Kent**, is to ensure emissions to air are mitigated effectively for the duration of the construction phase of the Kent Onshore Scheme. It also outlines the air quality monitoring that is proposed, which will be in place for the construction phase and will be used to ensure the proposed mitigation measures are working effectively.
- Ex1.1.2 This oAQMP has been informed by feedback received from stakeholders as part of the pre-application consultation. It should be noted that as this is an outline document, certain details will remain to be developed as the Proposed Project progresses into detailed design. The full details of all measures may not be available until after consent for the Proposed Project has been determined and these will be provided within the AQMP as necessary. However, the AQMP will need to be in accordance with this oAQMP. The production of an AQMP is secured via Requirement 6 of the DCO (**Application Document 3.1 draft Development Consent Order**).
- Ex1.1.3 It should also be noted that an equivalent oAQMP has been produced for the Suffolk Onshore Scheme (**Application Document 7.5.6.1 Outline Air Quality Management Plan – Suffolk**).

1. Introduction

1.1 Overview

1.1.1 This oAQMP has been prepared to support the application for development consent for the Sea Link Project (referred to hereafter as the ‘Proposed Project’). The purpose of the oAQMP is to ensure emissions to air are mitigated effectively for the duration of the construction phase of the Kent Onshore Scheme. It also outlines the air quality monitoring that is proposed, which will be in place for the construction phase and will be used to ensure the proposed mitigation measures are working effectively.

1.1.2 The oAQMP has been prepared with reference to the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction V2.2 2024 (Institute of Air Quality Management, 2024) and the IAQM Guidance on Monitoring in the Vicinity of Demolition and Construction Sites V1.1 2018 (Institute of Air Quality Management, 2018), and following consultation with Thanet District Council (TDC) Dover District Council (DDC) and Kent County Council (KCC).

1.1.3 This oAQMP should be read in conjunction with:

- **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project;**
- **Application Document 6.3.1.4.B Appendix 1.4.B Construction Plant Schedule;**
- **Application Document 6.2.3.8 Part 3 Kent Chapter 8 Air Quality; and**
- **Application Document 6.3.3.8.A Appendix 3.8.A Construction Dust Assessment and Methodology.**

1.1.4 It is supported by the following figures and plans:

- **Figure 1 (of this document) Sensitive Receptors and Proposed Monitoring Locations – Kent;**
- **Figure titled Heavy Goods Vehicle (HGV) Routing Plan in Application Document 6.4.2.7 Traffic and Transport**
- **Application Document 2.14.2 General Arrangement Plans – Kent;**
- **Kent Construction Dust Assessment Study Area in Application Document in Application Document 6.2.3.8 Air Quality; and**
- **Kent NRMM Emissions and Back-up Generator Emissions Study Area in Application Document 6.2.3.8 Air Quality**

1.1.5 It is supported by the following application documents:

- **Application Document 7.5.3 Outline Onshore Construction Environmental Management Plan (CEMP);**
- **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice;**

- Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC); and
- Application Document 7.5.1.2 Outline Construction Traffic Management and Travel Plan - Kent.

1.2 The Proposed Project

1.2.1 The Proposed Project is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the South East of England and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400kV overhead line close to Richborough in Kent. This reinforcement would be approximately 138 km long, comprising primarily of a HVDC offshore transmission link, with both HVDC and High Voltage Alternating Current (HVAC) onshore elements.

1.2.2 The Proposed Project would comprise the following elements:

The Suffolk Onshore Scheme:

- A connection from the existing transmission network via Friston Substation, including the substation itself. Friston Substation already has development consent as part of other third-party projects. If Friston Substation has already been constructed under another consent, only a connection into the substation would be constructed by as part of the Proposed Project.
- A high voltage alternating current (HVAC) underground cable of approximately 1.9 km in length between the proposed Friston Substation and a proposed converter station (below).
- A 2 GW high voltage direct current (HVDC) converter station (including permanent access from the B1121 and a new bridge over the River Fromus) approximately up to 26 m high plus external equipment (such as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, similar small scale operational plant, or other roof treatment) near Saxmundham.
- A HVDC underground cable connection of approximately 10 km in length between the proposed converter station near Saxmundham, and a transition joint bay (TJB) approximately 900 m inshore from a landfall point (below) where the cable transitions from onshore to offshore technology.
- A landfall on the Suffolk coast (between Aldeburgh and Thorpeness).

The Offshore Scheme:

- Approximately 122 km of subsea HVDC cable, running between the Suffolk landfall location (between Aldeburgh and Thorpeness), and the Kent landfall location at Pegwell Bay.

The Kent Onshore Scheme:

1.2.3 The element of the Proposed Project covered by this oAQMP is the Kent Onshore Scheme, which lies within the jurisdiction of KCC, TDC, and DDC. The Kent Onshore Scheme would comprise:

- A landfall point on the Kent coast at Pegwell Bay.
- A Transition Joint Bay (TJB) approximately 800 m inshore to transition from offshore HVDC cable to onshore HVDC cable, before continuing underground for approximately 1.7 km to a new converter station (below).
- A 2 GW HVDC converter station (including a new permanent access off the A256), up to 28 m high plus external equipment (such as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, and similar small scale operational plant), near Minster. A new substation would be located immediately adjacent.
- Removal of approximately 2.2 km of existing HVAC overhead line, and installation of two sections of new HVAC overhead line, together totalling approximately 3.5 km, each connecting from the substation near Minster and the existing Richborough to Canterbury overhead line.

1.2.4 The Proposed Project also includes modifications to sections of existing overhead lines in Suffolk (only if Friston Substation is not built pursuant to another consent) and Kent, diversions of third-party assets, and land drainage from the construction and operational footprint. It also includes opportunities for environmental mitigation and compensation. The construction phase will involve various temporary construction activities including overhead line diversions, use of temporary towers or masts, working areas for construction equipment and machinery, site offices, parking spaces, storage, accesses, bellmouths, and haul roads, as well as watercourse crossings and the diversion of public rights of way (PROWs) and other ancillary operations.

1.2.5 Further details regarding the Proposed Project, including the construction programme and the activities proposed during the construction phase are contained within **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**.

1.3 Legislation and Policy

1.3.1 All legislation and policy requirements relevant to this oAQMP are outlined in Section 8.2 in **Application Document 6.2.3.8 Part 3 Kent Chapter 8 Air Quality**.

2. Emission Sources

2.1.1 The construction phase of the Proposed Project has the potential to result in temporary air quality impacts due to construction vehicle, dust, and Non-Road Mobile Machinery (NRMM) emissions. The main sources of the emissions during the construction phase are summarised in the following sections and detailed in **Application Document 6.2.3.8 Part 3 Kent Chapter 8 Air Quality** and **Application Document 6.3.3.8.A Appendix 3.8.A Construction Dust Assessment and Methodology**.

2.2 Fugitive Dust

1.2.1 The undertaking of activities such as excavation, ground works, cutting, construction, and storage of materials has the potential to result in fugitive dust emissions throughout the construction phase. Vehicle movements, both on-site and on the local road network, also have the potential to result in the re-suspension of dust from highway surfaces.

1.2.2 Construction activities could take place anywhere within the Order Limits; however, the main dust sources are likely to be the construction compounds and haul roads, as well as the re-suspension of dust from vehicles exiting these locations.

2.3 Vehicle Emissions

2.3.1 The Kent Onshore Scheme will predominantly be accessed via the following four access points during the construction phase (as shown on **Figure titled Heavy Goods Vehicle (HGV) Routing Plan in Application Document 6.4.2.7 Traffic and Transport**):

- A256 Northbound Carriageway: Main access during the construction phase accommodating circa 91% of all construction vehicle trips (circa five years, peak year in terms of total annual movements expected in 2030);
- Ebbsfleet Lane: To be used for approximately ten months during construction (prior to 2030 peak) accommodating circa 4% of all construction vehicle trips;
- Ebbsfleet Lane North: Secondary access during construction to be used for approximately six months during construction (prior to 2030 peak) accommodating circa 2% of all construction vehicle trips; and
- Sandwich Road: Secondary access during construction to be used for approximately six months during construction (prior to 2030 peak) accommodating circa 2% of all construction vehicle trips.

2.3.2 A very low proportion of construction vehicles (circa 1% in total, and less than 1% HGVs) is expected across the remaining access points which comprise Jutes Lane, Marsh Farm Road and Whitehouse Drove.

1.2.3 The largest traffic flows are anticipated on the A256 Richborough Way (between the Sevenscore and Ebbsfleet roundabouts).

2.4 NRMM Emissions

- 2.4.1 Temporary construction compounds are required throughout the route to facilitate construction activities. These compounds store all materials necessary for the works, including plant, waste, cable ducts, cable drums, and accessories. In addition to storage, compounds also provide a location for site offices, parking, and welfare facilities for construction operatives.
- 2.4.2 The indicative locations of the construction compounds for the Kent Onshore Scheme are illustrated on **Application Document 2.14.2 General Arrangement Plans - Kent**. Construction compounds are proposed adjacent to the combined converter station and substation site (construction compounds K01, K02 and K03), A256 bellmouth (construction compounds K04 and K05), and near the landfall site (construction compound K06). The construction compound at K05 may not be required in the field to the east of the A256 if the offshore cable were to be taken further inland (in that scenario only K04 to the west of the A256 would be required) depending on the final design. However, the worst-case of a compound also being required east of the A256 has been assessed.
- 2.4.3 It is understood that the Minster Substation and Minster Converter Station site will be connected to the existing Distribution Network Operator system to provide an electricity supply to the sites, both temporarily during construction and permanently for operation. However, there may be a requirement for generators at the construction compounds and other NRMM will be operational throughout the construction phase as indicated in **Application document 6.3.1.4.B Appendix 1.4.B Construction Plant Schedule**.

3. Meteorological Conditions

3.1 Overview

3.1.1 Meteorological conditions (particularly wind speed, direction and rainfall) can significantly affect the dispersion of emissions from a construction site. Plate 3.1 presents a wind rose from Manston Airport, which is just over a kilometre north of the Kent Onshore Scheme. It is considered that meteorological conditions at this location are indicative of conditions at the Kent Onshore Scheme. The wind rose indicates that the prevailing wind is from the southwest.

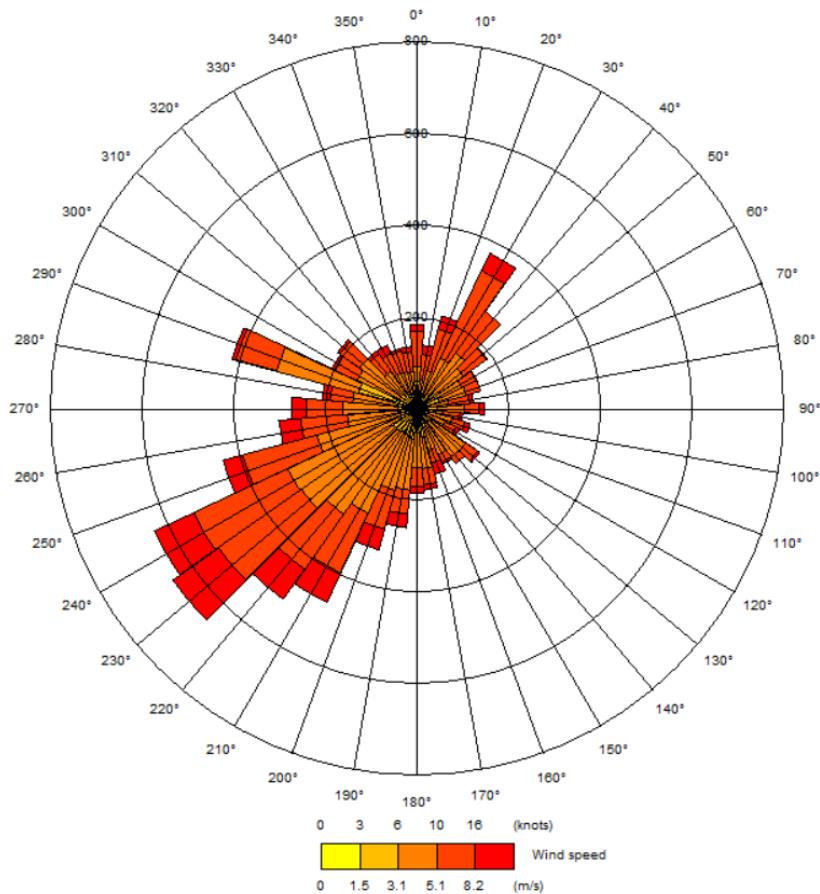


Plate 3.1 Wind Rose from Manston Airport (2023)

4. Sensitive Receptors

4.1 Human receptors

4.1.1 There are a number of human receptors surrounding the Kent Onshore Scheme. These include:

- Great Oaks Small School which is less than 30 m south of the Order Limits along Jutes Lane; and
- A number of residential properties along Ebbsfleet Lane, Sandwich Road, Cliffsend Road, Cottington Road; and Marsh Farm Road.

4.1.2 There is one residential property within 200 m of the proposed construction compounds and Minster Substation and Minster Converter Station; this located on the A299 and is approximately 130 m from the construction compound on Sandwich Road.

4.1.3 Human receptors in the vicinity of the Proposed Project are presented in **Figure 1 Sensitive Receptors and Proposed Monitoring Locations – Kent**.

4.2 Ecological receptors

4.2.1 There are several ecological receptors within the vicinity of the Order Limits. The closest ecological receptor is Sandwich Bay to Hacklinge Marshes Site of Special Scientific Interest (SSSI); part of the SSSI falls inside the Order Limits about 20 m from the Minster Converter Station and Minster Substation boundary. Along the coast to the east of the Proposed Project, there is Thanet Coast & Sandwich Bay Special Protection Area (SPA), Sandwich Bay Special Area of Conservation (SAC), Thanet Coast SAC, Sandwich Bay to Hacklinge Marshes SSSI, Sandwich and Pegwell Bay National Nature Reserve (NNR) and Thanet Coast and Sandwich Bay Ramsar which all overlap the Order Limits along the coast.

4.2.2 Ecological receptors in the vicinity of the Proposed Project are presented in **Figure 1** of this document **Sensitive Receptors and Proposed Monitoring Locations – Kent**.

5. Mitigation Measures

5.1 Overview

5.1.1 Measures relevant to the control and management of air quality impacts during construction are outlined in the following sections. All measures presented have been included within **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice**.

5.2 Fugitive Dust

5.2.1 Table 5.1 presents the proposed construction dust mitigation measures for the Proposed Project. These are based on the IAQM construction dust guidance (IAQM, 2024) and have been adapted for the Proposed Project based on the risk of dust effects, as detailed in **Application Document 6.3.3.8.A Appendix 3.8.A Construction Dust Assessment and Methodology**.

Table 5.1 Construction dust mitigation measures

Mitigation Measure	CoCP Measure Reference Number
<u>Communications</u>	
The name and contact details for the Proposed Project will be displayed at the entrance to all compounds. This will include an emergency number.	GG09
<u>Dust Management</u>	
Develop and implement an AQMP, approved by the Local Authority.	AQ01
<u>Site Management</u>	
Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	GG27
Make the complaints log available to the local authority when asked.	GG27
Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book.	GG27

Mitigation Measure	CoCP Measure Reference Number
Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated to minimise dust and particulate matter emissions and to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.	AQ04
<u>Monitoring</u>	
Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100m of site boundary, with cleaning to be provided if necessary.	AQ02
Carry out regular site inspections to monitor compliance with the AQMP, record inspection results, and make an inspection log available to the local authority when asked.	AQ02
Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	AQ02
Agree dust deposition, dust flux, or real-time PM ₁₀ continuous monitoring locations with the Local Authority. Where possible, commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences.	AQ02
<u>Preparing and maintaining the site</u>	
Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	GG10
Erect solid screens or barriers around dusty activities or the site boundary so that are at least as high as any stockpiles on site.	AQ03
Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	AQ03
Avoid site runoff of water or mud.	GG15

Mitigation Measure	CoCP Measure Reference Number
Keep site fencing, barriers and scaffolding clean using wet methods.	AQ03
Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site, cover as described below.	AQ03
Earthworks and stockpiled soil will be protected by covering, seeding or using water suppression where appropriate.	GG19
<u>Operating vehicle/machinery and sustainable travel</u>	
Ensure all vehicles switch off engines when stationary - no idling vehicles.	GG12
Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	AQ04
Impose and signpost a maximum speed limit on unsurfaced haul roads and work areas.	AQ04
Produce a Construction Traffic Management and Travel Plan to manage the sustainable delivery of goods and materials.	GG02
Implement a Construction Traffic Management and Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	GG02
<u>Operations</u>	
Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	AQ05
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	AQ05
Use enclosed chutes and conveyors and covered skips.	AQ05
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	AQ05

Mitigation Measure	CoCP Measure Reference Number
Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	GG28
<u>Waste Management</u>	
Bonfires and the burning of waste material will be prohibited.	GG20
<u>Earthworks</u>	
Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.	GG19
Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.	AQ06
Only remove the cover in small areas during work and not all at once.	AQ06
<u>Construction</u>	
Avoid scabbling (roughening of concrete surfaces) if possible.	AQ07
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	AQ07
Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	AQ07
For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.	AQ07
<u>Trackout</u>	
Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site.	GG18
Avoid dry sweeping of large areas.	GG18
Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	AQ08

Mitigation Measure	CoCP Measure Reference Number
Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	AQ08
Record all inspections of haul routes and any subsequent action in a site log book.	AQ08
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned where possible.	AQ08
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	GG17
Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.	GG16
Access gates to be located at least 10 m from receptors where possible.	GG11

5.3 Vehicle Emissions

5.3.1 Several control measures relating to vehicle emissions have been included in the CEMP (Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice) including;

- GG12 - Plant and vehicles will conform to relevant applicable standards for the vehicle type as follows:
 - Euro 4 (NOx) for petrol cars, vans, and minibuses;
 - Euro 6 (NOx and PM) for diesel cars, vans, and minibuses; and
 - Euro VI (NOx and PM) for lorries, buses, coaches, and Heavy Goods Vehicles (excluding specialist abnormal indivisible loads).

Vehicles will be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. All plant and vehicles will be required to switch off their engines when not in use and when it is safe to do so. In addition, plant and vehicles will conform to relevant applicable standards for the vehicle type.

- AQ04 - Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable. Impose and signpost a maximum speed limit on unsurfaced haul roads and work areas. Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to

ensure plans are co-ordinated to minimise dust and particulate matter emissions and to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.

5.3.2 Further measures relating to construction traffic have been included in **Application Document 7.5.1.2 Outline Construction Traffic Management and Travel Plan (Kent)**. Measures include encouraging the construction staff to use sustainable transport and monitoring HGV movements and compliance with HGV routes, which will help to reduce construction vehicle emissions.

5.4 NRMM Emissions

5.4.1 Several control measures relating to NRMM emissions have been included in the CEMP (**Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice**) including;

- AQ04 - Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable. Impose and signpost a maximum speed limit on unsurfaced haul roads and work areas. Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated to minimise dust and particulate matter emissions and to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.
- AQ09 - Ensure all equipment complies with the appropriate Non-Road Mobile Machinery standards. Use stage 4 NRMM as a minimum and stage 5 where possible. Additionally, where possible, use alternative / renewable energy to power NRMM.
- GG10 - Any activity carried out or equipment located within a construction compound that may produce a noticeable nuisance, including but not limited to dust, noise, vibration and lighting, will be located away from sensitive receptors such as residential properties or ecological sites where practicable (where practicable) or designated ecological sites. Where it is not practicable to avoid proximity to sensitive receptors, appropriate mitigation measures will be implemented to minimise any potential nuisance, and stakeholders will be given advanced notice of the proposed work, justification for the work and details of any proposed mitigation.

6. Proposed Air Quality Monitoring and Reporting

6.1 Overview

6.1.1 In accordance with measure AQ02, the contractor will carry out air quality monitoring throughout the construction phase of the Proposed Project. This data will be available to the public and local authorities and help determine if further mitigation is required to reduce air quality impacts from the Proposed Project.

6.2 Visual Monitoring

6.2.1 As recommended in the IAQM Guidance on Monitoring in the Vicinity of Demolition and Construction Sites (Institute of Air Quality Management, 2018), an inspection for visible dust emissions in the vicinity of the construction works should be conducted at least once on each working day by the contractor at the various working locations. This should involve the following:

- Visual monitoring of dust deposition onto surfaces, and dispersion on and off site. There are likely to be many surfaces on and around the works boundary where it will be obvious that dust is being generated at a level where it is leading to visible surface soiling such as on plant foliage, car bonnets and roofs, windowsills and street furniture. Consideration will need to be given to the periods of time over which dust can accumulate, and whether surfaces were likely to have been clean before construction started.
- Visually surveying the site for evidence of dust release. For example, observing the movement of vehicles, construction activities and stockpiles.

6.2.2 Should there be drier periods of weather or should activities with increased potential for dust release be undertaken, the frequency of visual assessments will be increased, particularly if the prevailing wind is in a direction towards sensitive receptors. Should an increase in dust be observed, further mitigation may be required, which could include modifying or delaying dusty site activities.

6.2.3 The results of the inspection will be listed in a site log (see [Appendices](#))[Appendix B](#)).

6.3 Monitoring of Weather Forecasts

6.3.1 Weather forecasts will be checked on a daily basis. Should periods of particularly dry or windy weather be forecast, dust mitigation measures would be reviewed and where possible high-risk activities will be rescheduled to minimise air quality impacts on sensitive receptors.

6.36.4 Air Quality Monitoring

6.3.16.4.1 Construction dust comprises particulate matter and the main pollutants of concern in relation to construction vehicle and NRMM emissions are nitrogen oxides (NOx) (which includes nitrogen dioxide (NO₂)) and particulate matter. There are a wide range of monitoring techniques available to measure air pollutants/dust, ranging from active (powered) samplers to simpler passive (unpowered) samplers. For the Kent Onshore Scheme, portable active sensors, such as Zephyrs, are recommended. Zephyrs are a gas sensor measuring NO₂ and particulates, amongst other pollutants and have been approved as compliant with the Environment Agency Monitoring Certification Scheme (MCERTs) Performance Standards as an Indicative Ambient Particulate Monitor. The analysers can be connected to mains power supply or to a solar panel. Data can be uploaded remotely or downloaded directly to a computer using USB or Bluetooth. They are compact devices which can be attached to street furniture.

6.3.26.4.2 It is also proposed to install a meteorological mast at one of the monitoring locations so that the source can be identified should there be a pollution episode during the construction phase. The meteorological station will be capable of recording wind speed, direction, humidity and rainfall.

6.4.3 **The Air Quality Management Plan will be reviewed and updated throughout the construction phase of the Proposed Project as necessary, based on monitoring results.**

Baseline monitoring

6.3.36.4.4 A period of baseline monitoring will be undertaken for a minimum period of three months prior to any construction activity taking place, if possible. The data will be used to determine baseline conditions.

Trigger thresholds

6.3.46.4.5 Following review of the baseline data, trigger thresholds will be agreed with the local authorities. Should concentrations exceed these thresholds, additional abatement controls may be required, or the site works may need to temporarily stop.

6.3.56.4.6 The IAQM Guidance on Monitoring in the Vicinity of Demolition and Construction Sites (Institute of Air Quality Management, 2018) recommends a site action level of 190 µg/m³ averaged over a 1-hour period for PM₁₀. It is therefore proposed that this would be the provisional trigger threshold for PM₁₀. This would be reviewed following review of the baseline data.

6.3.66.4.7 The guidance does not include recommended site action levels for PM_{2.5}, NO₂ or NOx. These would be determined following review of the baseline data.

Monitoring Locations

6.3.76.4.8 Monitoring locations for baseline and construction stage monitoring have been selected along construction routes and adjacent to site compounds where human and/or ecological receptors are present. TDC requested that real time air quality sensors should be installed should the construction traffic route on Jutes Lane be selected due to the presence of Great Oaks Small School. Whilst the main construction traffic route will not be via Jutes Lane, a very small proportion of construction traffic (circa 1% in total, and less than 1% HGVs) will use Jutes Lane to access the Proposed Project and, as such, this location has also been included.

6.3.86.4.9 Figure 1 Sensitive Receptors and Proposed Monitoring Locations – Kent and
Table 6.1 present the selected monitoring locations. These have been agreed with TDC, DDC, and KCC.

Table 6.1 Proposed monitoring locations

Monitoring ID	Location	X	Y
Kent 1	Great Oaks Small School	633220	163068
Kent 2	Substation site boundary	632140	162912
Kent 3	Northern boundary of Sandwich Road compound	635474	164984
Kent 4	Adjacent to property on Ebbsfleet Lane	633630	162467

6.46.5 Site Logs

6.4.16.5.1 During the construction period, detailed site logs will be maintained by the contractor which will include the following:

- Any complaints from a local resident or business relating to alleged emissions from construction activities, including the date of the complaint, the nature of the complaint and any measures taken as a result of the complaint and copies of any correspondence between the complainant and the construction team. Complaints will be logged and investigated as soon as possible. An example complaints log is presented in Appendix B.
- The dates on which dust suppression techniques were utilised on site for dust mitigation purposes, detailing the location and duration.
- A list of all HGVs accessing the construction compounds, with confirmation that they all meet the Euro VI standard.
- The dates and vehicle registration numbers of any construction vehicle or plant which is observed:
 - not covered when carrying materials with a dust generating potential;
 - avoiding/not utilising wheel washing facilities;
 - appearing to exceed the site speed limit;
 - not utilising the approved haul road routes; or
 - emitting black exhaust smoke.
- A summary of the visual inspections undertaken over the week.
- A summary of the monitoring data undertaken over the week, including any periods of elevated concentrations, or if any of the trigger thresholds had been exceeded.

- Weather conditions.
- A list of NRMM being used, with confirmation that they all meet stage IV/V emissions.

6.4.26.5.2 The site logs will be reviewed on a weekly basis by the contractor's Environmental Manager and cross referenced against the construction activities to determine any correlation between particular activities and/or locations and any dust complaints.

6.4.36.5.3 Where complaints have arisen, mitigation measures will be reviewed to ensure they are performing as expected. New procedures or controls will be developed where problems continue to occur, and the oAQMP will be updated if required. Monitoring locations will also be reviewed and moved if required.

7. Summary

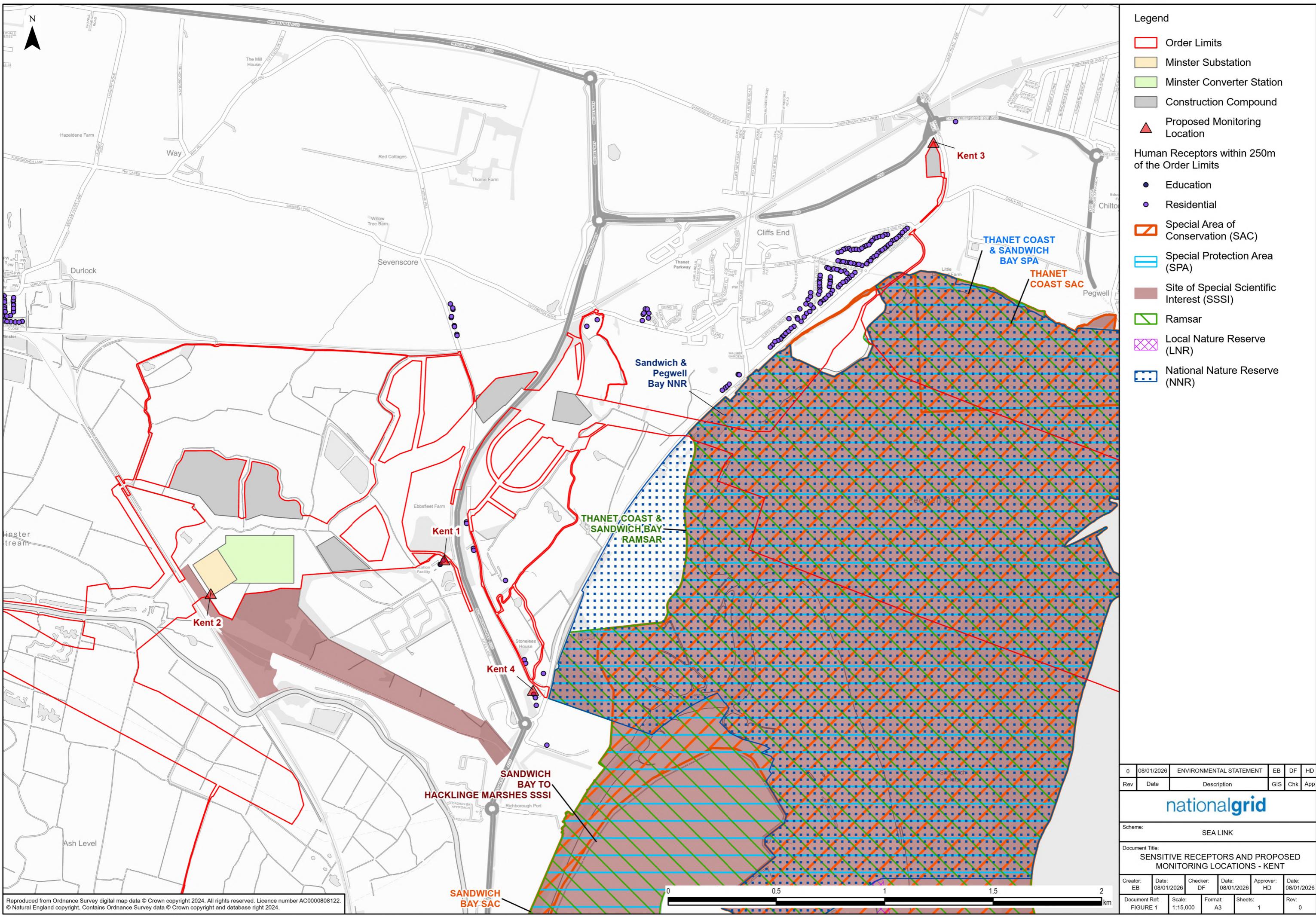
- 7.1.1 This oAQMP has been prepared to support the application for development consent for the Proposed Project. The purpose of the oAQMP is to ensure emissions to air are mitigated effectively for the duration of the construction phase of the Kent Onshore Scheme. It also outlines the air quality monitoring that is proposed, which will be in place for the construction phase and will be used to ensure the proposed mitigation measures are working effectively.
- 7.1.2 The proposed monitoring includes visual monitoring and air quality monitoring using portable active sensors at locations along construction routes and adjacent to site compounds where receptors are present. A period of baseline monitoring will be undertaken for a minimum period of three months prior to any construction activity taking place, if possible, to determine baseline conditions. It is also proposed to install a meteorological mast at one of the monitoring locations so that the source can be identified should there be a pollution episode during the construction phase. The AQMP will be reviewed and updated throughout the construction phase of the Proposed Project as necessary, based on monitoring results.
- 7.1.3 During the construction period, detailed site logs will be maintained by the contractor which will include details of any complaints received, non-compliance of mitigation measures, and a summary of visual inspections and air quality monitoring undertaken over the week. Where complaints have been received, mitigation measures will be reviewed to ensure they are performing as expected. New procedures or controls will be developed where problems continue to occur, and the oAQMP will be updated if required. Monitoring locations will also be reviewed and moved if required.

References

1. Institute of Air Quality Management. (2018). Guidance on Monitoring in the Vicinity of Demolition and Construction Sites (version 1.1). Retrieved from https://iaqm.co.uk/text/guidance/guidance_monitoring_dust_2018.pdf
2. Institute of Air Quality Management. (2024). Guidance on the Assessment of Dust from Demolition and Construction Version 2.2. Retrieved from <https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf>
3. Institute of Air Quality Management and Environmental Protection UK. (2017). Land-Use Planning & Development Control: Planning for Air Quality. Retrieved from <https://iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf>

Appendix A

Figures



Appendix B

Log

Visual Inspection Site

B.1.1 A form including the following as a minimum should be used for recording results from visual inspection surveys. All fields should be completed in full.

Date of inspection

Monitoring undertaken by (name and position in company)

Observations (including inspection locations and meteorological conditions)

Signed

Date

Appendix C Complaint log

C.1.1 A form including the following as a minimum should be used for recording any complaints. All fields should be completed in full.

Date of complaint

Name, address and telephone number of complainant

Details of complaint

Date and time of air quality incident

Description of air quality incident

Meteorological conditions at time of incident

Construction activities at time of incident

Date and time of complaint follow-up call

Action taken

Details of any required amendments to Air Quality Management Plan

Signed

Date

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