Meridian Solar Farm

EN010169

Volume 6

Environmental Statement

6.1 ES Chapter 6: Air Quality

APFP Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

March 2026

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6. Air Quality

6.1. Introduction

6.1.1. This chapter of the Environmental Statement (ES) presents the findings of an assessment of the likely significant effects on Air Quality as a result of the Scheme. For more details about the Scheme, refer to **ES Chapter 2: The Scheme** (Doc Ref. 6.1).

6.1.2. This chapter identifies and proposes measures to address the potential impacts and likely significant effects of the Scheme on Air Quality, during the construction, operational and decommissioning phases of the Scheme.

6.1.3. The following aspects of Air Quality have been scoped in and are presented within this chapter:

- The potential air quality impacts associated with the construction and decommissioning phases of the Scheme have been assessed and considers:
  - Impact of dust on amenity;
  - Impact of dust on human health; and
  - Impact of dust on sensitive ecological habitats.
- Construction traffic movements exceed the screening criteria set by Institute of Air Quality Management (IAQM) guidance[1]. Therefore, a quantitative assessment of the impacts from road traffic emissions has been undertaken. Although the nature of the works for decommissioning are similar to construction, they are likely to be less intense and associated 2-way traffic flows would be of lower magnitude. The quantitative assessment of road traffic emissions is considered to be a conservative basis for consideration of decommissioning phase road traffic emission effects.

6.1.4. This chapter is supported by the following figures (Doc Ref. 6.2):

- ES Figure 6-1: Construction Dust Study Area; and
- ES Figure 6-2: Model Study Area with Modelled Receptor Locations.

[1] Environmental Protection UK and Institute of Air Quality Management (2017) Land-Use Planning & Development Control: Planning for Air Quality. Available at: https://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf. [Accessed 05/11/2025]

6.1.5. This chapter is supported by the following technical appendices (Doc Ref. 6.3):

- ES Appendix 6-1: Air Quality Legislation, Policy and Guidance; and
- ES Appendix 6-2: Quantitative Road Traffic Emissions Assessment Methodology.

6.2. Legislation and Planning Policy

6.2.1. Full details of the legislation, policy, and guidance of relevance to the assessment of Air Quality are provided in **ES Appendix 6-1: Air Quality Legislation, Policy and Guidance** (Doc Ref 6.3).

6.3. Stakeholder Engagement

6.3.1. A request for an EIA Scoping Opinion, provided in **ES Appendix 1-1: EIA Scoping Report** (Doc Ref. 6.3), was sought from the Secretary of State through the Planning Inspectorate in 2024 as part of the EIA Scoping Process. A summary of consultation responses in relation to Air Quality are presented in Table 6-1. No further comments were received from technical stakeholders as part of the statutory or targeted consultation stages.

Table 6-1: Scoping Opinion responses in relation to Air Quality

Consultee	Summary of main matters raised	How has the matter been addressed?	Location of response in the ES
Planning Inspectorate	Operational phase – quantitative assessment: Operational traffic emissions can be scoped out based on low vehicle movements, but the ES must confirm vehicle types and numbers with reference to guidance thresholds to justify this position.	Operational road traffic movements are limited to maintenance-related activities and individual movements from control buildings. **ES Chapter 15: Traffic and Access** (Doc Ref. 6.1) confirms the number of movements for heavy duty and light duty vehicles. These values fall below the relevant IAQM screening thresholds that identify traffic flows above which significant effects could possibly occur. Emissions associated with operational traffic are not considered further within this assessment.	Paragraph 6.4.23 of **ES Chapter 6: Air Quality** (Doc Ref. 6.1)
Planning Inspectorate	Decommissioning Phase: Decommissioning traffic impacts should not be scoped out due to potential for significant effects, despite uncertainties. The ES should provide information on the likely trip generation during decommissioning and confirm the assessment conclusions for the decommissioning phase,	The decommissioning phase is expected to be broadly similar in duration and nature to the construction phase, though phased to generate lower 2-way 24 hour AADT flows. The assessment of construction phase effects on air quality provides a worst-case scenario for the assessment of likely significant effects during decommissioning.	Paragraph 6.4.24 of **ES Chapter 6: Air Quality** (Doc Ref. 6.1)

Consultee	Summary of main matters raised	How has the matter been addressed?	Location of response in the ES
	based on reasonable assumptions. Further details on the specific mitigation measures required to avoid likely significant effects should also be provided.	No likely significant effects from road traffic emissions have been identified that require additional mitigation. The assessment concludes that the embedded good practice measures are sufficient to avoid significant effects.	
Planning Inspectorate	Sensitivity of public receptors must be clearly defined and supported by referenced guidance.	Receptor sensitivity descriptors have been adopted from IAQM 2024 guidance. A detailed rationale and list of selected receptors are provided.	Table 6-9 Representative Dust Risk Receptors of **ES Chapter 6: Air Quality** (Doc Ref. 6.1)
Planning Inspectorate	Provide confirmation of whether any ecological sites lie within 200m of affected roads and assess likely significant effects from construction traffic emissions where relevant.	No nationally or internationally designated sites were identified within 200 m of the affected roads; however, several Local Wildlife Sites are present within this distance. A quantitative air quality assessment of construction traffic emissions has confirmed no likely significant effects at any ecological site.	Paragraph 6.4.33 and 6.6.14 of **ES Chapter 6: Air Quality** (Doc Ref. 6.1)
Planning Inspectorate	Baseline Review: Baseline air quality should be adequately characterised through a desk study, and agreement sought with relevant consultation	A desktop study has been undertaken to characterise baseline air quality conditions. Existing data from monitoring locations operated by SHDC have	Section 6.6 Baseline Conditions of **ES Chapter 6: Air**

Consultee	Summary of main matters raised	How has the matter been addressed?	Location of response in the ES
	bodies on the need for additional survey or monitoring work.	been reviewed and is representative of conditions within the rural study area. We understand that SHDC have no existing concerns about air quality conditions within the study area, that would require additional baseline data collection to inform this assessment.	**Quality** (Doc Ref. 6.1)
Planning Inspectorate	Mitigation Measures: All mitigation measures relied upon to address significant effects should be clearly described and secured within the DCO.	The assessment has confirmed that no additional mitigation measures are required to address effects, which are all not significant. Good practice controls on emissions to air have been adopted and these embedded measures are set out in this report and will be secured through the implementation of environmental management plans, principally the **Outline Construction Environmental Management Plan (CEMP)** (Doc Ref. 7.10), **Outline Operational Environmental Management Plan (OEMP)** (Doc Ref. 7.11), and **Outline Decommissioning**	Table 6-8: Proposed Good Practice Measures of **ES Chapter 6: Air Quality** (Doc Ref. 6.1)

Consultee	Summary of main matters raised	How has the matter been addressed?	Location of response in the ES
		Environmental Management Plan (DEMP) (Doc Ref. 7.12), which are secured within the **Draft DCO** (Doc Ref. 3.1).	
Planning Inspectorate	Assessment type: Criteria used to determine whether a qualitative or quantitative assessment is required should be clearly explained and justified.	Screening for progressing to quantitative assessment of operational, construction and decommissioning traffic emission impacts was undertaken against criteria adopted from IAQM guidance. The construction dust assessment followed IAQM qualitative methodology that is the widely accepted good practice approach.	Assessment methodology is described in Section 6.4 of **ES Chapter 6: Air Quality** (Doc Ref. 6.1)
Gedney Hill Parish Council	Construction: Requested further reporting on changes in air quality, particularly around land parcel D.	An air quality assessment has been undertaken, across all construction phases. Impacts on sensitive receptors near the Scheme, including land parcel D are set out within Section 6.6 of this chapter.	Section 6.6 of **ES Chapter 6: Air Quality** (Doc Ref 6.1)

6.4. Assessment Methodology

Baseline Methodology

6.4.1. To assess the potential Air Quality impacts of the Scheme, it is necessary to determine the baseline conditions. The baseline conditions are the current (at the time of writing the ES) conditions of the Site and surroundings within the defined study area. The current baseline has been determined through a desktop study.

6.4.2. The air quality assessment has reviewed publicly available sources of data to characterise baseline ambient air quality at and around the Site, including air quality monitoring undertaken by South Holland District Council (SHDC) and neighbouring local authorities, and the Defra background maps.

6.4.3. There is no existing network of monitoring undertaken to monitor dust levels across the UK, nor is the assessment of dust generated by construction related activities dependent on baseline pollutant concentrations. Therefore, the assessment of construction dust with an aerodynamic diameter greater than PM_{10} is not related to a baseline.

6.4.4. The following sources of information have been used to inform the baseline and assessment presented within this section:

- SHDC Annual Status Report 2024[2];
- Defra's Multi-Agency Geographic Information for the Countryside (MAGIC)[3]; and
- Defra Modelled Background Maps.[4]

6.4.5. Baseline concentrations of pollutants and the assessment of impacts in relation to construction site and vehicle emissions has been undertaken against air quality thresholds relevant to that element of the assessment. These thresholds comprise;

- The Air Quality Standards (AQS);
- The Air Quality Objectives (AQO); and

2 South Holland District Council (2024). *Annual Progress Report*. Available at *https://shollandair.rcdo.co.uk/air-quality-in-south-holland/Reports/South_Holland_District_Council_ASR_2024.pdf* [Accessed 05/11/2025]
3 Defra (2023). *MAGIC Map*. Available at: https://magic.defra.gov.uk/ [Accessed 05/11/2025]
4 Defra (2021). *Background Mapping Data for Local Authorities*. Available at: Background Mapping data for local authorities - DEFRA UK Air - GOV.UK [Accessed 05/11/2025]

- The Annual Mean Concentration Target (AMCT) for $PM_{2.5}$.

6.4.6. The AQSs for human receptors are as follows:

- Annual mean Nitrogen Dioxide (NO_2): 40µg/m^3;
- Hourly mean NO_2: 200µg/m^3, not to be exceeded more than 18 times per year;
- Annual mean particulate matter, with diameters of 10 micrometers (µm) or less (PM_{10}) : 40µg/m^3;
- 24-hour mean PM_{10}: 50µg/m^3, not to be exceeded more than 35 times per year; and
- AMCT for annual mean $PM_{2.5}$: 10 µg/m^3.

Assessment Approach

6.4.7. There is currently no statutory guidance on the methodology for air quality impact assessments. Several non-statutory bodies have published their own guidance relating to air quality and development control, such as the 2017 guidance published by IAQM[1]. This assessment has adopted the framework approach that is proposed in this guidance.

6.4.8. This section details the methods used to assess the potential effects on air quality during the construction, operational and decommissioning phase of the Scheme.

Construction Phase Fugitive Dust

6.4.9. A qualitative Dust Risk Assessment (DRA) for the construction phase of the Scheme has been undertaken in line with IAQM (2024) guidance[5]. The assessment considers likely dust impacts at sensitive receptors located within the distances specified by the guidance: up to 250m from the Order Limits for human receptors, and within 50 m of routes used by construction vehicles on the public highway, extending up to 250m from site access points. Receptor locations include, where appropriate, those associated with nearby consented and committed developments. Committed developments refer to sites with planning permission granted but not yet constructed or occupied, ensuring that future sensitive receptors are considered in the assessment.

[5] Institute of Air Quality Management (2024) Guidance on the Assessment of Dust from Demolition and Construction. Available at: https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf. [Accessed 05/11/2025]

6.4.10. The assessment is based on IAQM 2024 guidance[5] and considers potential sources of emissions from four main activity groupings:

- Demolition;
- Earthworks;
- Construction; and
- Trackout.

6.4.11. The emphasis within the IAQM guidance[5] is on clarifying the risk of dust impacts from the Scheme. For each activity group, the following steps are applied with respect to identifying the potential effects, before coming to an overall conclusion about the significance of the effects predicted:

- Identify the nature, duration and the location of activities being undertaken;
- Establish the risk of significant effects occurring as a result of these activities;
- Review the proposed or embedded good practice measures against good site practice;
- Identify additional mitigation measures, if necessary, to reduce the risk of a significant adverse effect occurring at receptors; and
- Summarise the overall effect of the works with respect to fugitive emissions of particulate matter and report the significance of the effects.

6.4.12. Construction of the Scheme is assumed, as a worst-case scenario, to commence in 2029, with construction of each land parcel occurring in tandem (as described in **ES Chapter 2: The Scheme** (Doc Ref. 6.1)), rather than in defined phases. As such, the construction dust assessment considers a single scenario assuming construction activities could be occurring anywhere within the Order Limits at any time during the construction programme.

Decommissioning Phase Fugitive Dust

6.4.13. The nature, scale and locations of works required to deconstruct the Scheme are very similar to the works required to construct it. There are no new activities the potential to generate dust associated with the decommissioning phase. The assessment of dust impacts during the construction phase is considered to be representative of decommissioning phase dust impacts.

6.4.14. Prior to any decommissioning works taking place a DRA and Dust Management Plan (DMP) will be agreed with SHDC, which would be secured through the

Outline DEMP (Doc Ref. 7.12). These will be based on what information is available at each stage and will be adapted to any process changes as necessary.

Construction and Decommissioning Phase Non-Road Mobile Machinery (NRMM) Emissions

6.4.15. Construction Non-Road Mobile Machinery (NRMM), such as excavators, loaders, cranes, and bulldozers, can contribute to local increases in pollutants like NO_2 and PM_{10} during construction activities. These potential impacts have been taken into account in the assessment. Current IAQM guidance[5] indicates that, based on experience, emissions from NRMM and site traffic are generally unlikely to have a significant effect on local air quality, and in most cases do not warrant detailed quantitative assessment.

6.4.16. Emissions from NRMM would be temporary and localised and would be controlled through best-practice measures.

6.4.17. As NRMM are lost from the fleet, they are progressively replaced by new NRMM that achieve ever more stringent emission rate standards. The IAQM approach is based on the previous experience of likely impacts from NRMM and as time passes this guidance becomes increasingly precautionary. In this assessment, the IAQM qualitative approach has been applied as part of the construction dust assessment. This assessment is also considered to represent worst-case effects for the decommissioning phase.

Construction Phase Road Traffic Emissions

6.4.18. Traffic data for the additional vehicle movements associated with the Scheme has been screened against the IAQM guidance[1] which suggests that a detailed Air Quality assessment is required when:

- The change in Light Duty Vehicle (LDV) flows is greater than 500 veh/day annual average daily traffic (AADT) outside of an Air Quality Management Area (AQMA); or the change in Heavy Duty Vehicle (HDV) flows is greater than 100 veh/day AADT outside of an AQMA; and
- The change in LDV flows is greater than 100 veh/day annual average daily traffic (AADT) within an AQMA; or the change in HDV flows is greater than 25 veh/day AADT within an AQMA.

6.4.19. Where one or more of the IAQM guidance[1] screening criteria are exceeded (in relation to construction vehicle movements) and where construction may take place for at least one year, the impact of vehicle movements on air quality should be modelled.

6.4.20. Based on information provided by the project transport consultant, construction phase road traffic volumes will be greater than criteria used to establish if no significant effects can be concluded without the need for further assessment. A quantitative assessment of impacts related to construction phase traffic has been conducted. The following two scenarios have been modelled:

- **Scenario 1 (S1)** – 'Peak construction year without development' (2031), for the year during which the largest volume of construction traffic that would be attributable to the Scheme will be generated, inclusive of future baseline and traffic from nearby committed and consented developments (if data are available) but without Scheme construction; and
- **Scenario 2 (S2)** – 'Peak construction year with development' (2031): the year during which the largest volume of construction traffic attributable to the Scheme will be generated, inclusive of future baseline, traffic from nearby committed and consented developments (if data are available) and Scheme traffic.

6.4.21. A detailed dispersion modelling assessment methodology can be found in **ES Appendix 6-2: Quantitative Road Traffic Emissions Assessment Methodology** (Doc Ref. 6.3).

6.4.22. The potential for impacts on ecological sites was also screened using the following criteria from the IAQM 2020 guidance[6]:

- Distance screen: Designated ecological sites more than 200m from any roads for which traffic data are available were screened out from further assessment;
- Effects of the Scheme: Designated ecological sites were only considered where the Scheme would lead to an increase in traffic of 1,000 vehicle movements (expressed as AADT flow) or 200 HDV movements, on its own or cumulatively.

Operational Phase Road Traffic Emissions

6.4.23. Operational road traffic movements are limited to irregular trips associated with maintenance activities. **ES Chapter 15: Traffic and Access** (Doc Ref. 6.1) confirmed that the number of movements will be below the IAQM screening

[6] Institute of Air Quality Management (2020) *A guide to the assessment of air quality impacts on designated nature conservation sites.* Available at: https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf. [Accessed 15/10/2025]

criteria[1] and therefore operational traffic movement emissions are not considered further in this assessment.

Decommissioning Phase Road Traffic Emissions

6.4.24. As outlined within **ES Chapter 2: The Scheme** (Doc Ref. 6.1), the decommissioning period is expected to be shorter in duration but similar in nature to the construction phase and could be phased with a lower intensity of work. It is also anticipated that there will be fewer road trips associated with decommissioning. Likewise, the effects of decommissioning are typically similar to, or lesser than, those that could occur during the construction phase. There is inherent uncertainty in predicting decommissioning activities, as engineering approaches and technologies are expected to advance over the operational life of the Scheme.

Operational (and Maintenance) Phase BESS Unplanned Fire Emissions

6.4.25. Potential air quality impacts from rare and unplanned events such as fire incidents involving BESS or substations have been considered in **ES Chapter 16 Other Environmental Topics** (Doc Ref. 6.1). These events are unlikely but could result in short-term emissions that may affect nearby sensitive receptors.

6.4.26. A separate, detailed assessment of these scenarios has been prepared and is presented in **ES Appendix 16-4: Unplanned Emissions Assessment from BESS** (Doc Ref. 6.3). This includes modelling of potential emissions for thermal events affecting a single cabinet or multiple cabinets. The modelling supports a risk-based evaluation in line with relevant guidance, including the National Fire Chiefs Council (NFCC) and Acute Exposure Guideline Levels (AEGL).

Sensitivity of Receptors

6.4.27. Receptors of interest for the air quality assessment are those which represent locations where people are most likely to be present, as the assessment is most concerned with human health and amenity. Receptors also include designated nature conservations that are sensitive to air quality impacts.

Construction Phase Fugitive Dust

6.4.28. For the purposes of the construction dust assessment, the receptor sensitivity has been defined (as either low, medium or high) based on the number of each type of receptor at different distances from the Site or each area in which trackout is anticipated to occur. The sensitivity is assessed separately in relation to disamenity due to dust deposition, human health, and ecological sensitivity.

6.4.29. Potentially affected human receptors have been identified (and the number of receptors at different distances from the Site estimated) through a review of Ordnance Survey (OS) mapping and aerial photography.

6.4.30. A review has been undertaken to identify sensitive ecological receptors with National or European designations within 50m of the Site. The construction dust assessment explicitly considered sites with relevant designations located either within 50m of the Order Limits or within 50m of public highway routes used by construction vehicles (up to 250m from each access point). Potential ecological receptors are outlined below:

- Site of Special Scientific Interest (SSSI);
- Special Protection Area (SPA);
- Special Area of Conservation (SAC);
- Ramsar Site;
- National Nature Reserve (NNR); and
- Local Nature Reserve (LNR).

6.4.31. This assessment confirmed that no such designated sites are located within the immediate vicinity of the Scheme.

6.4.32. Sites possessing the following designations have also been reviewed however, explicit consideration as part of the construction dust assessment is not required in accordance with the IAQM 2024 guidance[5]:

- Ancient Woodland; and
- Local Wildlife Sites (LWSs).

Construction Phase Traffic Emissions

6.4.33. The relevant sensitive receptor locations within the local area and at relevant monitoring locations are outlined in detail in **ES Appendix 6-2: Quantitative Road Traffic Emissions Assessment Methodology** (Doc Ref. 6.3). These human and ecological receptors can be seen on **ES Figure 6-2** (Doc Ref. 6.2). The rationale for selecting receptors (i.e. definition of relevant exposure) is summarised below:

- The annual mean AQO value applies at locations where members of the public might be regularly exposed, such as building façades of residential properties, schools, hospitals, and care homes;

- The 24-hour mean AQO value applies at the annual mean locations of exposure as well as at hotels and residential gardens;
- The 1-hour mean AQO value applies at the annual mean locations of exposure and at hotels, residential gardens and any outdoor location where members of the public might reasonably be expected to spend one hour or longer, such as busy pavements, outdoor bus stations and locations with outdoor seating; and
- Places of work like factories are not considered places where members of the public might be regularly exposed and therefore the AQOs do not apply at these locations.

6.4.34. In summary, the sensitive receptors where concentrations of NO_2, PM_{10}, and $PM_{2.5}$ have been predicted for the ES are:

- 4 existing ecological receptors, all designated as LWS, located within 50 m of the Site.
- 15 receptors at existing locations within the local area. These receptors were within 200m of a road that exceeded the change in traffic flow criteria.
- In total, 60 receptors have been included in the assessment, with full details provided in Table 6-9, and **ES Appendix 6-2: Quantitative Road Traffic Emissions Assessment Methodology** (Doc Ref. 6.3) for further context.

6.4.35. The modelled receptor locations are shown in ES Figure 6-2: Model Study Area with Modelled Receptor Locations (Doc Ref. 6.2).

6.4.36. The sensitive receptors have been modelled at a height of 1.5m and 0m for human and ecological receptors, respectively, to represent ground floor locations of worst-case exposure at existing location, closest to the key pollution source (road traffic).

Magnitude of Impact

6.4.37. Table 6-2 identifies the magnitude of impact criteria which has been used to assess impacts in relation to Human Health.

Table 6-2: Health Impact Magnitude Criteria

Magnitude of Impact	Description
Major	High exposure or scale; long-term duration; continuous frequency; severity predominantly related to mortality or changes in morbidity (physical or mental health) for very severe illness/injury outcomes; majority of population affected; permanent change; substantial service quality implications.
Moderate	Low exposure or medium scale; medium-term duration; frequent events; severity predominantly related to moderate changes in morbidity or major change in quality-of-life; large minority of population affected; gradual reversal; small service quality implications.
Minor	Very low exposure or small scale; short-term duration; occasional events; severity predominantly related to minor change in morbidity or moderate change in quality-of-life; small minority of population affected; rapid reversal; slight service quality implications.
Negligible	Negligible exposure or scale; very short-term duration; one-off frequency; severity predominantly relates to a minor change in quality-of-life; very few people affected; immediate reversal once activity complete; no service quality implication.

Significance of Effect

6.4.38. Human Health effects are a reflection of the relationship between the sensitivity of the affected receptor and the magnitude of impact. Table 6-3 below shows how the assessment of the significant of effects has been considered in relation to Human Health. Significant effects are shown in bold. Where two options are shows for the assessment of significance (e.g. minor/negligible), professional judgement has been used to determine which of the two options is appropriate.

Table 6-3: Health Impact Significance Matrix

Sensitivity of Receptor	Magnitude of Change			
	Major	Moderate	Minor	Negligible
High	Major	Major/Moderate	Moderate/Minor	Minor/ Negligible
Medium	Major/Moderate	Moderate	Minor	Minor/ Negligible
Low	Moderate/Minor	Minor	Minor	Negligible
Very Low	Minor/ Negligible	Minor/ Negligible	Minor/ Negligible	Negligible

Construction Phase Fugitive Dust

6.4.39. The risk of dust impacts from construction activities has been defined by assessing the impact magnitude and receptor sensitivity and determining the dust impact risk based on the combined values presented.

6.4.40. The significance of the potential for dust to affect sensitive receptors before mitigation has been assessed using professional judgement but based on the risk of dust impacts. For example, where there is a medium or high risk of dust impacts in the absence of additional mitigation, this has been viewed as having a moderately or highly significant impact.

6.4.41. When assessing the significance of dust impacts during the construction phase, the IAQM 2024 guidance[5] recommends that significance is only assigned to an effect after considering the construction activity with good practice measures. The significance of effects following the implementation of mitigation, if any additional site specific measures are required, is reassessed. In this regard, the IAQM 2024 guidance[5] indicates that "*For almost all construction activity, the aim should be to prevent significant effects on receptors through the use of effective mitigation. Experience shows that this is normally possible. Hence the residual effect will normally be 'not significant*."

Construction Phase Traffic Emissions

6.4.42. The potential impacts of the Scheme at the modelled human receptors were assessed by comparing estimated pollutant concentrations with the AQOs, with and without the Scheme in place. The IAQM guidance[1] descriptors for

magnitude of impact were used to assess the annual mean changes in NO_2, PM_{10} and $PM_{2.5}$ concentrations, primarily because the mechanism considers the effects in terms of the magnitude of change from predicted concentrations and also relative to the AQOs.

6.4.43. Table 6-4 shows the IAQM guidance[1] impact descriptors that take account of the percentage change in concentration relative to the air quality assessment level (AQAL), in this case the annual mean AQSs, and the annual mean concentration at the receptor during the assessment year.

Table 6-4: Air Quality impact descriptors for changes to annual mean NO_2, PM_{10} and $PM_{2.5}$ concentrations

Annual mean concentration at receptor in assessment year	% Change in concentration relative to AQO			
	1	2-5	6-10	>10
75% of less of AQAL	Negligible	Negligible	Slight	Moderate
76-94% of AQAL	Negligible	Slight	Moderate	Moderate
95-102% of AQAL	Slight	Moderate	Moderate	Substantial
103-109% of AQAL	Moderate	Moderate	Substantial	Substantial
110% or more of AQAL	Moderate	Substantial	Substantial	Substantial

6.4.44. Changes in the hourly mean NO_2 and daily mean PM_{10} concentrations should not be assessed using the IAQM guidance[1]. criteria specified above. Consequently, the following impacts would be considered to exert significant effects at a specific receptor location:

- Where the Scheme causes a receptor to exceed an annual mean NO_2 concentration of 60µg/m^3, when it did not do so without the Scheme; and/or
- Where the Scheme causes a receptor to experience more than 35 exceedances per year of the daily mean PM_{10} limit.

6.4.45. The IAQM guidance[1] impact magnitude descriptors were considered, alongside receptor sensitivity, to determine air quality effect descriptors for specific receptors considered in this assessment.

6.4.46. Locations where ambient AQOs should be applied are outlined in TG22[7] based on the potential sensitivity of receptors to acute and chronic exposure to air pollutants. The assessment has reported pollutant impact magnitudes at receptor locations where application of ambient AQOs is recommended by TG22. Consequently, all reported receptors are considered as being of a 'high' sensitivity.

6.4.47. Since all the receptors considered have the same sensitivity, there is a relationship between impact descriptors and effect descriptors, as shown in Table 6-5. Moderate or major effects are considered significant, and minor and negligible effects are considered not significant.

Table 6-5: Air Quality Effect Descriptors for Receptors Considered

Impact Descriptor	Effects Descriptor
Negligible	Negligible
Slight	Minor
Moderate	Moderate
Substantial	Major

6.4.48. The overall significance of predicted changes in local air quality, including background pollutant concentrations, has been established through the consideration of the following factors:

- The existing and future air quality in the absence of the Scheme;
- Duration (temporary or long term);
- Reversibility (reversible or permanent);
- The extent of current and future population exposure to the impacts; and
- The influence and validity of any assumptions adopted when undertaking the prediction of impacts.

[7] Department for Environment, Food and Rural Affairs (2022) Local Air Quality Management: Technical Guidance (TG22). Available at: https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf. [Accessed 05/11/2025]

6.5. Assessment Assumptions and Limitations

6.5.1. The assessment is based on the Scheme design set out in ES Chapter 2: The Scheme (Doc Ref. 6.1) and shown on ES Figure 2-6: Solar Development Area Illustrative Construction Layout Plan (Doc Ref. 6.2) and ES Figure 2-7: Grid Connection Route Illustrative Construction Layout Plan (Doc Ref. 6.2).

6.5.2. A DRA has been undertaken on a whole-site basis, assuming site preparation and construction works can be undertaken at any location within the Order Limits. This provides a worst-case assessment, ensuring that if works are undertaken in a different location than anticipated, then the assessment has covered this potential.

6.5.3. For the construction phase traffic emissions assessment, backgrounds and traffic data for 2031 have been used; however, construction is assumed to commence in 2029 and as such backgrounds will be slightly higher than those used in the processing of results. This is not anticipated to have a material impact on assessment results due to the peak traffic being in 2031, not 2029.

6.5.4. The modelling of construction traffic introduces a degree of uncertainty, as it relies on algorithms that simplify complex real world dispersion processes. It has been assumed that dispersion will conform a Gaussian distribution over flat terrain, thereby simplifying dispersion conditions.

6.5.5. Much of the data imported into the model is based on reasonable estimates. For example, it is assumed that the AADT flow would represent conditions over a year, emissions generated from the emissions factor toolkit represent the average of vehicles from the fleet and modelled background pollutant concentrations are representative of conditions within the modelled area. It is also assumed that the meteorological data, surface roughness and Monin-Obukhov length would represent dispersion conditions across the modelled domain.

6.5.6. The screening of operational (and maintenance) and decommissioning phase traffic data against the IAQM criteria[1] is based on relevant data from **ES Chapter 15: Traffic and Access** (Doc Ref 6.1).

6.5.7. Two cumulative assessment scenarios are set out in **ES Chapter 4: Overview of the EIA Process** (Doc Ref. 6.1) which are considered to capture the worst-case cumulative effects. For this chapter, the below scenario is considered in relation to the cumulative schemes assessment:

- Scenario 1: Construction periods and the peak construction of the Scheme and the Grimsby to Walpole DCO, Outer Dowsing Offshore Wind Farm

DCO, the Weston Marsh to East Leicestershire Project (WMEL) DCO and Ossian Wind Farm DCO overlap in 2031.

6.5.8. This represents a reasonable worst-case due to the temporal overlap of peak construction periods for the Scheme and other nearby DCO projects, resulting in the greatest potential for cumulative construction traffic and emissions.

6.6. Baseline Conditions

6.6.1. This section describes the baseline environmental characteristics for the Scheme and surrounding areas with specific reference to Air Quality.

Current Baseline

6.6.2. 'Baseline' air quality refers to the concentrations of relevant substances that are already present in ambient air. There are currently no AQMAs within the SHDC administrative boundary.

6.6.3. SHDC has an established monitoring network consisting of two automatic analysers and 15 non-automatic (passive) diffusion tube monitoring locations. The most recently available Air Quality Annual Status Report (ASR)[2] shows that the nearest monitoring location to the Site is SH1 which is approximately 2km south of the Site, located in Crowland. The available nearby monitoring data indicates that the study area is likely to be below the annual mean Air Quality Objectives (AQOs) for NO_2, PM_{10} and $PM_{2.5}$.

6.6.4. Road traffic is a primary source of emissions to air. The combustion of fuel in vehicles leads to several harmful by-products which can affect air quality in the vicinity of roads. Areas with high traffic volumes or near to major roads often experience elevated pollutant levels, particularly in the form of NO_2, PM_{10} and $PM_{2.5}$. Fixed sources, such as boilers, can also be important emissions sources. Potential air emissions from demolition and construction activities, particularly in the form of dust, have the potential to cause a loss of amenity (due to dust soiling). The finer fraction of dust, in the form of PM_{10} and particulates of finer fractions, have the potential to affect human health.

6.6.5. Monitoring results for the South Holland district for NO_2, PM_{10} between 2019-2023 are presented in Table 6-6 below.

Table 6-6: Annual Mean NO_2 and PM_{10} concentrations monitored by SHDC ($\mu g/m^3$) during 2019-2023.

Site Name	Pollutant	Annual mean pollutant concentrations ($\mu g/m^3$)				
		2019	2020	2021	2022	2023
CM1	NO_2	9.3	8.5	8.7	8.9	8.2
	PM_{10}	13.7	10.9	9.0	11.5	10.0
CM2	NO_2	9.3	7.7	7.4	7.8	6.8
	PM_{10}	14.2	12.9	12.6	14.5	13.4

Site Name	Pollutant	Annual mean pollutant concentrations (µg/m^3)				
		2019	2020	2021	2022	2023
SH1	NO_2	10.3	8.9	8.8	9.7	8.3
SH2a, b, c		32.1	27.6	29.8	32.2	30.1
SH3		11.0	9.4	9.7	10.7	9.0
SH4		10.1	8.9	8.7	9.6	8.2
SH5		12.8	11.0	11.6	12.1	11.1
SH6		27.9	20.9	23.8	27.6	24.3
SH7		26.4	20.0	19.5	21.6	18.3
SH8a, b, c		9.6	8.1	7.3	7.9	6.8
SH11		15.5	12.7	14.3	14.4	13.6
SH13		25.7	21.9	24.0	25.9	23.8
SH19 (former SH14)		16.3	13.4	14.5	14.5	13.1
SH15		22.3	17.6	19.9	19.6	17.5
SH16		17.0	12.1	13.4	13.6	12.3
SH17		20.3	18.7	19.0	22.2	19.6
SH18		19.8	16.7	17.3	18.7	16.3
Air Quality Objective		**40**				

6.6.6. Data available from the UK Air Information Resource (UK-AIR) website operated by Defra[8] has been used to establish estimated annual average background

8 Department for Environment, Food and Rural Affairs (2024) UK AIR: Air Information Resource. Available at: https://uk-air.defra.gov.uk/ [Accessed 05/11/2025]

concentrations of NO_2, PM_{10} and $PM_{2.5}$ across the study area on a 1km^2 grid basis.

6.6.7. Table 6-7 below presents estimated annual average background NO_2, PM_{10} and $PM_{2.5}$ concentrations for the grid square containing the Site, centred around (530500, 312500) for years corresponding to baseline (2024), beginning of construction phase (2029) and the future baseline year (2031). The estimated background concentrations at the Scheme are well below the relevant AQOs for NO_2, PM_{10} and $PM_{2.5}$.

6.6.8. As background concentrations are predicted to fall with time, background concentrations in future years would not be expected to exceed their respective AQOs.

Table 6-7: Estimated Background Annual Average NO_2, PM_{10} and $PM_{2.5}$ Concentrations at the Site.

Assessment Year	Estimated Background Annual Average Pollutant Concentration (µg/m^3)		
	NO_2	PM_{10}	$PM_{2.5}$
2024	5.3	13.1	5.9
2029	4.6	12.7	5.6
2031	4.3	12.6	5.5
Air Quality Objective	40	40	20

Baseline Dust Climate

6.6.9. A background level of dust exists in all urban and rural locations in the UK. Dust can be generated on a local scale from vehicle movements and from the action of wind on exposed soils and surfaces. Dust levels can be affected by long range transport of dust from distant sources into the local vicinity.

6.6.10. This baseline rate of soiling is considered normal and varies dependent on prevailing climatic conditions. The tolerance of individuals to deposited dust is therefore shaped by their experience of baseline conditions.

6.6.11. Existing local sources of particulate matter include wind-blown dust from agricultural activities, exhaust emissions from energy plant and road vehicles, brake and tyre wear from road vehicles and the long-range transport of material from outside the Study Area.

6.6.12. The Scheme is located amidst agricultural fields which are worked by farmers. Activities may include tiling and ploughing, harvesting, baling hay or straw, grain handling and driving on unpaved roads. These activities have the potential to create airborne dust, especially in dry weather. Individuals living near the scheme may therefore experience notable levels of deposited dust.

Sensitive Receptors

6.6.13. Sensitive receptors within the study area that may be affected by the Scheme during the construction phase, include:

- Occupants of residential buildings, hotels and shops in proximity to roads carrying traffic travelling to and from the Site whilst construction activities are ongoing, including farms, villages and hamlets located inside, or within 250 metres of, the Site. This includes traffic along Cloot Drove, Welland Bank, Queen's Bank Martins Road near to Crowland, and Hull's Drove, West Drove North, North Road, Langary Gate Road near to Whaplode Drove; and
- Users of nearby buildings or amenity space, which may experience a loss of amenity due to dust soiling, or whose health may be affected as a result of fugitive dust and pollutants such as NO_2 and PM_{10} generated by construction related activities or NRMM.

6.6.14. For the purposes of the construction phase fugitive dust assessment, a search of Defra's MAGIC maps website[3] indicates that there are no designated SACs, SPAs, Ramsar Sites, SSSIs, National or Local Nature Reserves or Ancient Woodland within 200m of the Site. However, as stated in **ES Chapter 9: Ecology and Biodiversity** (Doc Ref. 6.1), a number of LWS have been identified within 200m of the Site and include:

- Slys Connection LWS, located within the Solar Development Area (land parcels D-2 and D-3);
- New River LWS, located approximately 80m to the west and north boundaries of the Solar Development Area (land parcel A-1 and partially 80m to the northern boundary of land parcel B-4);
- River Welland Corridor LWS, located approximately 90m to the north-west corner of the Solar Development Area (land parcel A-1);
- South Holland Main Drain, West LWS, located within the Solar Development Area (land parcel B-5);
- Wheatmere Drain LWS, located within the Grid Connection Route; and

- High Bank Gull LWS located 200m north west from the Solar Development Area (land parcel A- 1).

Future Baseline

6.6.15. Based on the monitored and estimated background data presented above, it is considered that the Scheme is located in an area where the NO_2, PM_{10} and $PM_{2.5}$ AQOs are unlikely to be exceeded.

6.6.16. TG22[7] indicates that the annual mean NO_2 AQO needs to breach 60µg/m^3 before the hourly mean AQO is breached. Annual mean PM_{10} concentrations also need to exceed 32µg/m^3 before the number of days on which the 24-hour mean PM_{10} AQO is exceeded would be breached. The baseline data therefore indicates that these AQOs would not be exceeded.

6.6.17. The nearest SHDC monitored location is at Crowland, SH1. Despite the distance of this monitor from the Site (approximately 2km) and its urban background nature, additional data collected by SHDC indicate that annual mean NO_2 concentrations are unlikely to be exceeded in the vicinity of the Site, based on the latest year for which complete representative monitoring data are available (2023) and also for the future baseline assessment year (2031). As pollutant concentrations tend to disperse and dilute with distance from the road, it is considered likely that annual mean NO_2 concentrations at the Site will be lower than those recorded at the monitoring locations listed in Table 6-6.

6.6.18. Emissions of NOx, PM_{10} and $PM_{2.5}$ from vehicles are expected to decrease with time, as newer, less polluting vehicles replace older ones using local roads (although PM_{10} and $PM_{2.5}$ concentrations may eventually level off). As such, air quality by the future baseline assessment year (2031) is generally expected to comply with all five AQOs at and around the Site.

6.7. Embedded Mitigation

6.7.1. This section contains the mitigation measures relevant to this chapter that are already incorporated into the Scheme design and the management plans submitted with the DCO Application, as described in **ES Chapter 2: The Scheme** (Doc Ref. 6.1).

6.7.2. The adoption of good site practice will be implemented through measures to control dust as outlined within the IAQM guidance[5]. It is proposed that the measures from the IAQM 'High Risk' category are adopted where relevant, regardless of the level of risk identified in the assessment and the construction phase activities for the Scheme. As decommissioning activities are predicted to be similar to construction, the same good practice measures are predicted to apply.

6.7.3. Implementation of these measures will be secured through the provision of a detailed CEMP as a DCO Requirement and are included in the **Outline CEMP** (Doc Ref. 7.10), as appropriate. Similarly, an **Outline DEMP** (Doc Ref. 7.12) is included alongside this ES, with the detailed DEMP to be prepared prior to the start of decommissioning, again secured via a DCO Requirement. In addition, an **Outline CTMP** (Doc Ref. 7.13) has been prepared to manage and mitigate traffic related impacts during construction. Good practice measures for the management of dust from maintenance and replacement works during the operational phase have been incorporated within the **Outline** (**OOEMP**) (Doc Ref. 7.11), secured via a DCO Requirement.

6.7.4. Table 6-8 presents the industry good practice measures proposed to be adopted by the Scheme as embedded mitigation measures to control impacts on air quality. These measures are taken from the IAQM's 'highly recommended' and 'desirable' list of measures for a high-risk category site, but represent good practice as widely employed across most large construction sites in the UK.

Table 6-8: Proposed Good Practice Measures

Measure
Communications
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
Display the name and contact details of person(s) accountable for air quality and dust issues on the Site boundary. This may be the environment manager or the site manager.

Measure
Display the head office or the regional office contact information.
Develop and implement a DMP, which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk, and should include as a minimum the highly recommended measures in this ES chapter. The desirable measures should be included as appropriate for the Site. The DMP may include monitoring of dust deposition, dust flux, real-time PM_{10} continuous monitoring and/or visual inspections.
Site Management
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.
Make the complaints log available to the local authority when asked.
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.
Hold regular liaison meetings with other high risk construction sites within 250m of the Site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.
Monitoring
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.
Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
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.

Measure
Agree dust deposition, dust flux, or real-time PM_{10} continuous monitoring locations with the Local Authority. Where reasonably practicable commence baseline monitoring at least three months before work commences on site or, if it is a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
Preparing and maintaining the Site
Plan Site layout so that machinery and dust causing activities are located away from receptors, as far as is practical
Avoid Site runoff of water or mud.
Keep Site fencing, barriers and scaffolding clean using wet methods.
Remove materials that have a potential to produce dust from site as soon as reasonably practicable unless being re-used on site. If they are being re-used on-site cover as described below.
Cover, seed or fence stockpiles to prevent wind whipping, if stockpile will be present for more than 1 year.
Operating vehicle/machinery and sustainable travel
Ensure all vehicles switch off engines when stationary - no idling vehicles.
Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where reasonably practicable to do so.
Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas and consider use of matts as temporary surface protection on haul routes. On long haul routes, such as those proposed through the Grid Connection Route, these speeds may be increased with suitable additional control measures provided, subject to agreement with the Local Authority.
Produce a detailed Construction Traffic Management Plan to manage the sustainable delivery of goods and materials.
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
Operations

Measure
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.
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where reasonably practicable and appropriate.
Use enclosed chutes and conveyors and covered skips.
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event.
Waste management
Avoid bonfires and burning of waste materials.
Earthworks
Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as reasonably practicable.
Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as reasonably practicable.
Only remove the cover in small areas during work and not all at once.
Construction
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.
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.
For smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust.
Trackout

Measure
Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the Site.
Avoid dry sweeping of large areas.
Ensure vehicles entering and leaving sites are covered, where appropriate, to prevent escape of materials during transport.
Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
Record all inspections of haul routes and any subsequent action in a site log book.
Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
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.
Access gates to be located at least 10m from receptors, where reasonably practicable.

6.8. Assessment of Potential Impacts and Likely Significant Effects

6.8.1. The Scheme as outlined in **ES Chapter 2: The Scheme** (Doc Ref. 6.1) has been considered in assessing the potential impacts and likely significant effects of the Scheme, whilst considering the embedded mitigation described within this chapter.

6.8.2. The DRA considers the potential magnitude of dust emissions at each stage of the Scheme in conjunction with the sensitivity of the surrounding area, following IAQM guidance[5]. Based on these parameters, the Site will be classified as low, medium or high risk of adverse amenity effects being caused.

6.8.3. The assessment considers the potential risk across a set of predefined zones, up to 250m from the Site and affected roads. These zones are presented in **ES Figure 6-1: Construction Dust Study Area** (Doc Ref. 6.2).

6.8.4. The chosen representative dust risk receptors are shown in Table 6-9. Dust receptor locations were chosen to represent residential areas in proximity of the Site. All properties assessed are located within 250m of the Order Limits, or within 200m of roads with traffic travelling to and from the Site. The location of these representative receptors are illustrated within **ES Figure 6-2: Model Study Area with Modelled Receptor Locations** (Doc Ref 6.2). The chosen receptor locations are representative of other receptors within the wider community and would experience larger magnitude impacts than receptors located further from the source of emissions. For example, the selected representative receptors are all residential properties.

Table 6-9: Representative Dust Risk Receptors

Receptor ID	X Coordinate	Y Coordinate	Descriptors
R1	522225	305764	Residential – Thorney Road
R2	521822	305995	Residential – Thorney Road
R3	521780	306065	Residential – Thorney Road
R4	524342	309320	Residential – Barbers Drove South
R5	526853	310242	Residential – Cox's Road
R6	527447	310477	Residential – Cox's Road
R7	530584	312238	School – Shepeau Stow Primary School

Receptor ID	X Coordinate	Y Coordinate	Descriptors
R8	530630	312300	Residential – Hull's Drove Road
R9	530682	312250	Residential – Drove Road
R10	533129	311811	Residential – Mill Lane
R11	533077	311802	Residential – Long Lane
R12	535669	318548	Residential – Joy's Bank
R13	534887	318365	Residential – Joy's Bank
R14	534911	318385	Residential – Joy's Bank
R15	534869	318389	Residential – Jekil's Bank Road
R16	534306	318187	Residential – Jekil's Bank Road
R17	534326	318236	Residential – Jekil's Bank Road
R18	535244	318463	Residential – Joy's Bank
R19	535262	318433	Residential – Joy's Bank
R20	530145	317307	Residential – Jekil's Bank Road
R21	530070	317350	Residential – Eaugate Road
R22	530128	318314	Residential – Roman Road
R23	529364	318250	Residential – Roman Road
R24	529333	318265	Residential – Roman Road
R25	529400	318266	Residential – Roman Road
R26	526906	318002	Residential – Moulton Chapel Road
R27	526963	318060	Residential – Moulton Chapel Road
R28	526782	318028	Residential – Moulton Chapel Road

Receptor ID	X Coordinate	Y Coordinate	Descriptors
R29	526772	318061	Residential – Moulton Chapel Road
R30	526613	318016	Residential – Moulton Chapel Road
R31	526596	318045	Residential – Moulton Chapel Road
R32	526555	317201	Residential – Backgate Road
R33	526531	317195	Residential – Backgate Road
R34	526579	316385	Residential – Barrier Bank Road
R35	526138	314922	Residential – Queen's Bank Road
R36	526265	314472	Residential – Spalding Road
R37	526243	311596	Residential – Spalding Road
R38	524758	314319	Residential – Cloot Drove Road
R39	524127	312027	Residential – Cloot Drove Road
R40	524212	310945	Residential – Cloot Drove Road
R41	524209	310614	Residential – Postland Road
R42	524258	310634	Residential – Postland Road
R43	524259	310592	Residential – Postland Road
R44	524765	310797	Residential – Postland Road
R45	524706	310823	Residential – Girdlestone Walk Road
R46	527166	311594	Residential – Hull's Drove Road
R47	527849	311838	Residential – Hull's Drove Road

Receptor ID	X Coordinate	Y Coordinate	Descriptors
R48	529177	312567	Residential – Martins Road
R49	528394	314486	Residential – Queen's Bank Road
R50	527389	314699	Residential – Queen's Bank Road
R51	527302	314610	Residential – Queen's Bank Road
R52	525128	320100	Residential – Drain Bank North
R53	526288	322757	Residential – A16
R54	526206	322781	Residential – A16
R55	526413	322780	Residential – Low Road
R56	526706	323917	Residential – Holbeach Road
R57	526329	323786	Residential – A151
R58	526893	324162	Residential – Holbeach Road
R59	529298	325262	Residential – High Road
R60	529485	325261	Residential – High Road

Dust Risk Assessment

Construction (2029-2033)

Step 1 – Screening

6.8.5. The peak construction year for the purposes of the EIA is anticipated to be 2031 for the Solar Development Area and Inter-Array Connections, and 2030 for the Grid Connection Route; this assumes commencement of construction in 2029 and that the Scheme is built out over a four-year period, with all sites constructed concurrently. It is currently anticipated that the Scheme will commence commercial operation in 2033. Sources of dust emissions are likely to occur during this period. The greatest potential for dust effects is likely to

occur during the excavation and earthworks phases, in addition to the substructure construction phase.

6.8.6. The Site is located in a rural area of south east Lincolnshire, north of Crowland and east of Spalding, and consequently there are receptors in proximity to the Site that may be affected by the works. This includes high sensitivity receptors such as residential properties, as well as medium sensitivity receptors such as commercial and warehouse units.

6.8.7. There are residential dwellings within 5m of the Order Limits, with additional receptors within the full 250m boundary.

6.8.8. Defra background maps[4] indicate an average background PM_{10} concentration of 12.9 µg/m^3 across the study area in 2031. This is well below the annual average objective value of 40 µg/m^3.

Step 2A – Definition of the Potential Dust Emission Magnitude

Demolition Phase

6.8.9. No demolition is anticipated to occur prior to construction.

Earthworks Phase

6.8.10. Whilst the total site area is large, due to the small area of earthworks (<18,000 m^2) and the fact that there will likely be no heavy earth moving vehicles and small stockpile, the potential dust emission magnitude has been categorised **Small**.

Construction Phase

6.8.11. Whilst the construction is proposed to take place across a relatively large area, the total building volume would be small, and materials would be preassembled. The potential dust emission magnitude has therefore been categorised as **Small.**

Trackout

6.8.12. The Scheme will involve a daily peak of 64 HGV deliveries to the Solar Development Area and Inter-Array Connections and 75 HGV deliveries for the Grid Connection Route. Site access will be via multiple points, with temporary internal haul roads within the Solar Development Area and a continuous haul road within the proposed Grid Connection Route. The Grid Connection Route includes several accesses to local highways. As such the potential dust emission magnitude for the trackout phase is categorised as **Large.**

Step 2B – Definition of the Sensitivity of the Area

Sensitivity of People to Dust Soiling Effects

6.8.13. The receptor sensitivity is categorised as **high** as locations where users can reasonably expect enjoyment of a high level of amenity; or appearance, aesthetics or value of property would be diminished by soiling; and people/property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land are located within 250m of the Order Limits, i.e. residential dwellings.

Sensitivity of People to Health Effects of PM_{10}

6.8.14. The receptor sensitivity is categorised as **high** as locations where members of the public are exposed over a time period relevant to the 24-hour objective for PM_{10} (a relevant location would be where individuals may be exposed for 8 hours or more in a day) are located within 250m of the Order Limits, i.e. residential dwellings.

Sensitivity of Receptors to Ecological Effects

6.8.15. The receptor sensitivity is categorised as **low** as the locations are local designations where features may be affected by dust deposition.

Combined Sensitivity of the area for Dust Soiling Effects

6.8.16. The presence of high sensitivity receptors (i.e. residential dwellings) within 250m of the Order Limits results in a combined **high** sensitivity for Dust Soiling Effects.

Combined Sensitivity of the area to Human Health Impacts

6.8.17. Annual mean PM_{10} concentrations of <24.0 $\mu g/m^3$ across the study area in conjunction with the presence of <100 sensitive receptors within 20m of the Order Limits results in a combined **low** sensitivity for Human Health Impacts.

Combined Sensitivity of the area to Ecological Impacts

6.8.18. The presence of low sensitivity receptors within 50m of the Order Limits results in a combined **low** sensitivity for Ecological Impacts.

Summary

6.8.19. A summary of the magnitude of emissions and area sensitivity is provided in Table 6-10 and Table 6-11.

Table 6-10: Summary of Potential Dust Emission Magnitudes for Construction Phase Activities

Activity	Potential Dust Emission Magnitude
Demolition	N/A
Earthworks	Small
Construction	Small
Trackout	Large

Table 6-11: Summary of Area Sensitivity to Construction Phase Activities

Potential Effect Type	Sensitivity to Surrounding Area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	N/A	Low	Low	High
Human Health	N/A	Low	Low	Low
Ecological	N/A	Low	Low	Low

6.8.20. The magnitude of emissions and area sensitivity are combined to determine the risk of effects (assuming the use of good practice measures) as shown in Table 6-12. IAQM recommend that significance is only assigned to the effect after considering the construction activity with good practice measures in place.

Table 6-12: Summary of Risk of Dust Effects for Construction and Decommissioning Activities

Potential Effect Type	Summary of Dust Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	N/A	Low	Low	High
Human Health	N/A	Negligible	Negligible	Low
Ecological	N/A	Negligible	Negligible	Low

6.8.21. The overall risk level is **High Risk** for Dust Soiling, and **Low Risk** for Human Health and Ecological Effects.

6.8.22. The overall risk level guides which of the IAQM good practice measures[5] are recommended for implementation during construction. The Scheme has committed to a conservative approach and applied good practice measures from the 'High Risk' category at the Site. These measures are best practice for minimising the impact of dust impacts during construction.

6.8.23. In line with IAQM guidance[5], with the implementation of the good practice measures, any impacts relating to dust soiling or human health from construction dust would be not significant.

6.8.24. Table 6-13 provides a summary of the assessment of effects for air quality with the embedded good practice measures.

Table 6-13: Assessment of Effects - Air Quality (Construction and Decommissioning)

Receptor	Potential Impacts, Details and Evidence	Duration	Mitigation	Likely Significance of Effect
Human Health	Emissions of air pollutants, including dust, from construction and decommissioning activities affecting human health	Short-term Temporary (During the construction or decommissioning phase only)	As presented in Table 6-8 (IAQM recommended good practice measures).	**Minor Adverse (Not Significant)**
Dust Soiling	Emissions from construction and decommissioning activities affecting public amenity.	Short-term Temporary (During the construction or decommissioning phase only)	As presented in Table 6-8 (IAQM recommended good practice measures).	**Minor Adverse (Not Significant)**
Ecological	Emissions of air pollutants, including dust, from construction and decommissioning activities	Short-term Temporary (During the construction or decommissioning phase only)	As presented in Table 6-8 (IAQM recommended good practice measures).	**Minor Adverse (Not Significant)**

Receptor	Potential Impacts, Details and Evidence	Duration	Mitigation	Likely Significance of Effect
	affecting ecology sites			

Construction Phase Vehicle Exhaust Emissions

6.8.25. Table 6-14 presents the predicted annual mean NO_2 concentrations at each of the modelled receptor locations for scenarios S1 and S2. It also shows the percentage change in pollutant concentrations (with the Scheme) relative to the AQAL, the S2 pollutant concentration as a percentage of the AQAL, and the assigned IAQM guidance[1] impact descriptor.

6.8.26. Table 6-14 shows that the Scheme would not expose any receptors to annual mean NO_2 exceeding the AQO.

6.8.27. The largest change in annual mean NO_2 concentrations at sensitive receptors was a 1% increase relative to the AQO at receptors R26 and E4, located on the A16 Crowland Bypass, and receptor R54, located on the A16 east of Spalding. As per the IAQM guidance assessment method[1], the impact of the Scheme on annual mean NO_2 concentration has been determined as Negligible at all modelled receptor locations.

Table 6-14: Predicted annual mean NO_2 concentrations at modelled existing receptors (construction phase)

Receptor ID	Predicted annual mean NO_2 concentration ($\mu g/m^3$) Duration		% of AQAL	Change in Annual Mean as % of AQAL	IAQM Impact Descriptor
	S1 Without Development	S2 With Development			
R1	7.5	7.6	19.0	<0.1	Negligible
R4	7.1	7.1	18.0	<0.1	Negligible
R26	12.0	12.2	31.0	1.0	Negligible
R27	8.5	8.6	22.0	<0.1	Negligible
R28	8.6	8.7	22.0	<0.1	Negligible
R29	8.1	8.2	21.0	<0.1	Negligible

Receptor ID	Predicted annual mean NO_2 concentration ($\mu g/m^3$) Duration		% of AQAL	Change in Annual Mean as % of AQAL	IAQM Impact Descriptor
	S1 Without Development	S2 With Development			
R46	6.1	6.1	15.0	<0.1	Negligible
R47	6.0	6.1	15.0	<0.1	Negligible
R48	5.6	5.7	14.0	<0.1	Negligible
R52	7.4	7.5	19.0	<0.1	Negligible
R53	10.5	10.7	27.0	<0.1	Negligible
R54	12.2	12.4	31.0	1.0	Negligible
R55	6.8	6.8	17.0	<0.1	Negligible
R56	13.5	13.6	34.0	<0.1	Negligible
R57	7.5	7.5	19.0	<0.1	Negligible
E1	7.0	7.1	18.0	<0.1	Negligible
E2	5.5	5.6	14.0	<0.1	Negligible
E3	7.6	7.7	19.0	<0.1	Negligible
E4	27.5	28.1	70.0	1.0	Negligible

6.8.28. Table 6-15 presents the predicted annual mean PM_{10} concentrations at each of the modelled receptor locations in scenarios S1 and S2. It also shows the percentage change in pollutant concentrations (with the Scheme) relative to the AQAL, the S2 pollutant concentration as a percentage of the AQAL, and the assigned IAQM guidance impact descriptor.

6.8.29. Ecological receptors have only been assessed for NO_2, as PM_{10} and $PM_{2.5}$ are considered relevant mainly to human health rather than vegetation.

6.8.30. Table 6-15 shows that the annual mean PM_{10} concentrations are not predicted to exceed the annual mean PM_{10} AQO at any of the modelled receptors in both S1 and S2.

6.8.31. The change in annual mean PM_{10} concentration as a percentage of the AQAL was predicted to be <0.1% at all sensitive receptors. As per the IAQM guidance[1],

the impact of the Scheme on annual mean PM_{10} concentrations has been determined as Negligible at all modelled receptors.

Table 6-15: Predicted annual mean PM_{10} concentrations at modelled receptors

Receptor ID	Predicted annual mean PM_{10} concentration ($\mu g/m^3$) Duration		% of AQAL	Change in Annual Mean as % of AQAL	IAQM Impact Descriptor
	S1 Without Development	S2 With Development			
R1	14.0	14.0	35	<0.1	Negligible
R4	13.8	13.8	35	<0.1	Negligible
R26	16.9	17.0	43	<0.1	Negligible
R27	15.0	15.0	38	<0.1	Negligible
R28	15.0	15.1	38	<0.1	Negligible
R29	14.7	14.8	37	<0.1	Negligible
R46	12.6	12.6	32	<0.1	Negligible
R47	12.6	12.6	32	<0.1	Negligible
R48	13.2	13.3	33	<0.1	Negligible
R52	14.8	14.8	37	<0.1	Negligible
R53	15.2	15.3	38	<0.1	Negligible
R54	16.0	16.1	40	<0.1	Negligible
R55	13.2	13.2	33	<0.1	Negligible
R56	17.4	17.5	44	<0.1	Negligible
R57	13.7	13.7	34	<0.1	Negligible

6.8.32. Table 6-16 presents the predicted annual mean $PM_{2.5}$ concentrations at each of the sensitive receptor locations. It also shows the S2 pollutant concentration as a percentage of the AQAL, the percentage change in pollutant concentrations (with the Scheme) relative to the AQAL and the IAQM guidance impact descriptor.

6.8.33. Table 6-16 shows that the annual mean $PM_{2.5}$ concentrations are not predicted to exceed the annual mean $PM_{2.5}$ AQO at any of the relevant modelled receptors in both S1 and S2.

6.8.34. All of the modelled receptors show a change in annual mean $PM_{2.5}$ concentration of <0.1% relative to the AQAL. As per the IAQM guidance[1], the impact of the Scheme on annual mean $PM_{2.5}$ concentration has been determined to be Negligible at all modelled receptors.

Table 6-16: Predicted annual mean PM2.5 concentrations at modelled receptors

Receptor ID	Predicted annual mean $PM_{2.5}$ concentration ($\mu g/m^3$) Duration		% of AQAL	Change in Annual Mean as % of AQAL	IAQM Impact Descriptor
	S1 Without Development	S2 With Development			
R1	6.3	6.3	32.0	<0.1	Negligible
R4	6.4	6.4	32.0	<0.1	Negligible
R26	7.7	7.8	39.0	<0.1	Negligible
R27	6.7	6.7	34.0	<0.1	Negligible
R28	6.7	6.7	34.0	<0.1	Negligible
R29	6.5	6.6	33.0	<0.1	Negligible
R46	5.8	5.8	29.0	<0.1	Negligible
R47	5.8	5.8	29.0	<0.1	Negligible
R48	5.8	5.9	30.0	<0.1	Negligible
R52	6.5	6.5	33.0	<0.1	Negligible
R53	7.4	7.4	37.0	<0.1	Negligible
R54	7.8	7.8	39.0	<0.1	Negligible
R55	6.3	6.3	32.0	<0.1	Negligible
R56	8.5	8.5	43.0	<0.1	Negligible
R57	6.5	6.5	33.0	<0.1	Negligible

6.8.35. Based on the IAQM guidance[1], the change in annual mean NO_2, PM_{10} and $PM_{2.5}$ concentrations associated with the construction of the Scheme results in the Air

Quality impact being classified as negligible at all sensitive receptors for all pollutants assessed.

Operational Phase

6.8.36. Due to the nature of the Scheme, a significant change to traffic flow is not anticipated to occur during the operational and maintenance phase of the Scheme, meaning there are no likely significant air quality impacts predicted during operation and maintenance. A detailed assessment of emissions from operational road traffic and the subsequent impact upon local air quality is therefore not required and has been scoped out from further assessment.

Decommissioning Phase

6.8.37. Decommissioning effects are anticipated to be broadly similar to those identified for the construction phase, as activities will involve comparable plant, equipment, and working practices. This includes potential impacts from traffic movements, dust generation, and emissions. Although detailed traffic data for decommissioning is not yet available, a reasonable worst-case assumption has been applied by considering that the mitigation measures and controls proposed for construction will also be implemented during decommissioning. Therefore, the conclusions reached for construction are considered applicable to the decommissioning phase

6.9. Additional Monitoring, Mitigation and Enhancement Measures

6.9.1. There are no additional mitigation measures proposed as the Scheme would not give rise to significant effects.

6.10. Residual Effects

6.10.1. The residual effects of the Scheme during the construction, operational and decommissioning phases are outlined within Section 6.8 of this ES chapter. There are no significant residual effects as a result of changes to air quality. All effects are minor or negligible (not significant), as summarised within Table 6-17.

Table 6-17: Summary of Residual Effects in relation to Air Quality

Receptor	Description of Impact	Embedded Mitigation	Significance of Effect Without Additional Mitigation	Additional Mitigation/Enhancement Measure	Residual Effect
Construction and Decommissioning phases					
Sensitive receptors within 250m of the Order limits	Construction dust	Construction dust management measures set out within the **Outline CEMP** (Doc Ref. 7.10) **Outline DEMP** (Doc Ref. 7.12)	Minor adverse (not significant)	None required	Minor adverse (not significant)
Sensitive receptors within 250m of the road network	Traffic Emissions	**Outline Construction Traffic Management Plan** (Doc Ref. 7.13) **Outline CEMP** (Doc Ref. 7.10) and **Outline DEMP** (Doc Ref. 7.12)	Negligible (not significant)	None required	Negligible (not significant)

6.11. Cumulative Effects

6.11.1. Cumulative effects are the combined effects of several development schemes (in conjunction with the Scheme) which may, on an individual basis be insignificant but, cumulatively, have a significant effect. Cumulative effects with other development schemes are also referred to as inter-project cumulative effects. An assessment of the likely significant inter-project cumulative effects in relation to Air Quality is provided below for construction traffic assessment and for the dust risk assessment. The assessment of cumulative effects has considered other committed developments outlined within **ES Appendix 4-1: List of Cumulative Schemes** (Doc Ref. 6.3).

6.11.2. The assessment only considers the potential for cumulative construction and decommissioning effects to occur, as an operational phase assessment of the Scheme has been scoped out.

Cumulative Construction and Decommissioning Traffic Assessment

6.11.3. An updated ADMS-Roads model has been run to incorporate cumulative trip data, ensuring that cumulative construction traffic from all relevant committed developments is included, as explained in **ES Chapter 15: Traffic and Access** (Doc Ref. 6.1). This update ensures that the assessment accurately reflects the combined impact of all relevant traffic sources for the future year scenario. The revised modelling results, accounting for cumulative vehicle trips, are presented in the tables below. Although the additional traffic flows produce a slight rise in the predicted concentrations, no receptors are exposed to annual mean NO_2 levels exceeding the AQO. As a result, the overall magnitude of impact and the significance of the effect remain consistent with those found in the Scheme assessment, set out within Section 6.8 of this chapter. Effects during decommissioning are considered to be no worse than those identified for construction.

6.11.4. Ecological receptors are assessed only for NO_2, as they are not considered sensitive to PM_{10} or $PM_{2.5}$, which are primarily associated with impacts on human health rather than vegetation.

Table 6-18: Predicted annual mean NO_2 concentrations at modelled existing receptors (construction phase, including cumulative trips)

Receptor ID	Predicted annual mean NO_2 concentration ($\mu g/m^3$)	% of AQAL	Change in Annual Mean as % of AQAL	IAQM Impact Descriptor
R1	7.7	19	0.2	Negligible
R4	7.2	18	0.1	Negligible
R26	12.7	32	0.7	Negligible
R27	8.7	22	0.2	Negligible
R28	8.8	22	0.2	Negligible
R29	8.2	21	0.1	Negligible
R46	6.2	16	0.1	Negligible
R47	6.1	15	0.1	Negligible
R48	5.7	14	0.2	Negligible
R52	7.8	20	0.3	Negligible
R53	11.4	29	0.9	Negligible
R54	13.1	33	0.9	Negligible
R55	6.9	17	0.1	Negligible
R56	14.4	36	0.9	Negligible
R57	7.5	19	0.1	Negligible
E1	7.3	18	0.3	Negligible
E2	5.7	14	0.1	Negligible
E3	7.7	19	0.2	Negligible
E4	27.6	69	0.1	Negligible

6.11.5. The results for PM_{10} show that annual mean concentrations are not predicted to exceed the AQO at any of the modelled receptors. The change in annual mean PM_{10} concentration as a percentage of the AQAL was predicted to be <0.1% at all sensitive receptors. In line with IAQM guidance, the impact of the Scheme

together with cumulative traffic on annual mean PM_{10} concentrations has therefore been determined as Negligible at all modelled receptors.

Table 6-19: Predicted annual mean PM_{10} concentrations at modelled receptors

Receptor ID	Predicted annual mean PM_{10} concentration ($\mu g/m^3$) Duration	% of AQAL	Change in Annual Mean as % of AQAL	IAQM Impact Descriptor
R1	14.1	35	<0.1	Negligible
R4	13.9	35	<0.1	Negligible
R26	17.3	43	1.0	Negligible
R27	15.1	38	<0.1	Negligible
R28	15.2	38	1.0	Negligible
R29	14.9	37	<0.1	Negligible
R46	12.7	32	<0.1	Negligible
R47	12.6	32	<0.1	Negligible
R48	13.4	34	<0.1	Negligible
R52	15.0	38	1.0	Negligible
R53	15.6	39	1.0	Negligible
R54	16.6	42	1.0	Negligible
R55	13.3	33	<0.1	Negligible
R56	17.8	45	1.0	Negligible
R57	13.7	34	<0.1	Negligible

6.11.6. $PM_{2.5}$ concentrations are not predicted to exceed the annual mean AQO at any relevant modelled receptors. All receptors show a change in annual mean $PM_{2.5}$ concentration of <0.1% relative to the AQAL. As per IAQM guidance, the impact of the Scheme together with cumulative traffic on annual mean $PM_{2.5}$ concentrations has been determined to be Negligible at all modelled receptors.

Table 6-20: Predicted annual mean PM2.5 concentrations at modelled receptors including cumulative trips

Receptor ID	Predicted annual mean $PM_{2.5}$ concentration ($\mu g/m^3$) Duration	% of AQAL	Change in Annual Mean as % of AQAL	IAQM Impact Descriptor
R1	6.4	32	<0.1	Negligible
R4	6.4	32	<0.1	Negligible
R26	8.0	40	1.0	Negligible
R27	6.8	34	<0.1	Negligible
R28	6.8	34	1.0	Negligible
R29	6.7	34	1.0	Negligible
R46	5.8	29	<0.1	Negligible
R47	5.8	29	<0.1	Negligible
R48	5.9	30	<0.1	Negligible
R52	6.6	33	1.0	Negligible
R53	7.6	38	1.0	Negligible
R54	8.1	41	1.0	Negligible
R55	6.3	32	<0.1	Negligible
R56	8.7	44	1.0	Negligible
R57	6.4	32	<0.1	Negligible

Cumulative Dust Assessment

6.11.7. The Zone of Influence (ZoI) for the consideration of cumulative dust effects for Air Quality is 250m as shown on **ES Figure 6-1: Construction Dust Study Area** (Doc Ref 6.2). The cumulative schemes within the ZoI considered for Air Quality are listed within Table 6-21 below. An assessment of cumulative effects is provided within Table 6-22 below.

Table 6-21: Cumulative Schemes Considered within the Dust Assessment

Application Reference	Location	Application and Description	Distance from Scheme	Potential overlap in Temporal Scope?	Potential for Cumulative Effects?
EN020036: Grimsby to Walpole	Grimsby to Walpole	The project will be a new c140km long 400kv overhead line and 5 new substations stretching from a new substation to the west of Grimsby in the north to a new substation at Walpole near Wisbech in the south. Three further substations will be built, two to the south west of Mablethorpe and one to the north east of Spalding	Overlapping Order Limits	Potential - Construction dates assumed to commence in 2029 and continue to 2033. Overlap is assumed for worst case assessment.	Yes
EN0210007: National Grid Scheme - Weston Marsh to East Leicestershire	Spalding region of Lincolnshire	A new circa 60 kilometre 400kV overhead electricity transmission line which connects into the Weston Marsh substation infrastructure (to be constructed under the Grimsby to Walpole	Overlapping Order Limits	Temporal overlap assumed for worst case assessment.	Yes

Application Reference	Location	Application and Description	Distance from Scheme	Potential overlap in Temporal Scope?	Potential for Cumulative Effects?
		Project), in the Spalding region of Lincolnshire, and runs west to a new 400kV transmission substation (WMEL-B) near Wartnaby in Leicestershire, via a new 400kV transmission substation (WMEL-A) near Corby Glen in Lincolnshire.			
EN0210006 Ossian Wind Farm	Spalding region of Lincolnshire	Ossian Offshore Wind Farm Ltd ("the Applicant") is intending to develop transmission infrastructure to connect the Ossian Offshore Wind Farm Array (located in Scottish waters and subject to application for consent under section 36 of the Electricity Act 1989) to National Grid at	EIA Scoping boundary overlaps with the Order Limits of the Scheme	Temporal overlap assumed for worst case assessment.	Yes

Application Reference	Location	Application and Description	Distance from Scheme	Potential overlap in Temporal Scope?	Potential for Cumulative Effects?
		substations in Lincolnshire. The Proposed Development comprises the installation of high voltage direct current offshore export cables (to the extent that these are located in English waters), landfall structures, HVDC onshore export cables and onshore converter stations, and all other development integral to the construction, operation and maintenance of the Proposed Development, including access. It is proposed that the lifetime of the Proposed Development will be 35 years, at which point the			

Application Reference	Location	Application and Description	Distance from Scheme	Potential overlap in Temporal Scope?	Potential for Cumulative Effects?
		Proposed Development will be decommissioned.			
H09-0501-23	Land off Holbeach Drove Gate	Erection of agricultural machinery assembly facility, research and training facility, ground mounted solar array and associated infrastructure.	0km	Temporal overlap assumed for worst case assessment.	Yes
H02-0875-22	Decoy Farm Spalding Road Crowland	King prawn hatchery, grow out and processing facility.	0km	Temporal overlap assumed for worst case assessment.	Yes

Table 6-22: Cumulative Dust Assessment in relation to Air Quality

Receptor(s)	Residual effect of the Scheme alone	Assessment of cumulative effects with other developments listed within Table 6-21	Proposed additional mitigation applicable to the Scheme including any apportionment	Residual cumulative effects
Construction & Decommissioning				
Human Health and Ecological Receptors	Minor adverse (not significant)	Good practice dust control measures will be implemented in accordance with IAQM guidance, as set out within Section 6.7 of	None considered to be required.	Minor adverse (not significant)

Receptor(s)	Residual effect of the Scheme alone	Assessment of cumulative effects with other developments listed within Table 6-21	Proposed additional mitigation applicable to the Scheme including any apportionment	Residual cumulative effects
		this chapter. It is anticipated that similar measures will be adopted by cumulative schemes through their respective planning permissions, which will minimise concurrent dust emissions. Furthermore, the **Outline CEMP** (Doc Ref. 7.10) and **Outline DEMP** (Doc Ref. 7.12) set out the requirement to hold regular liaison meetings with other high risk construction sites within 250m of the Site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised.		