

Steeple Renewables Project

Chapter 14 – Air Quality

Environmental Statement – Volume 1

January 2026

Document Reference: EN010163/EX/6.2.14

Revision: 2

The Infrastructure Planning (Examination Procedure) Rules 2010

Rule 8(1)(b)



Chapter 14 – Air Quality

Document Properties		
Prepared By	The Steeple Renewables Project Consultant Team	
Version History		
Version	Date	Version Status
Application Version	April 2025	Rev 1
Examination	January 2026	Rev 2

Table of Contents:

Chapter 14 – Air Quality	2
14. Air Quality.....	3
14.1 Introduction.....	3
14.2 Legislation and Planning Policy.....	3
14.3 Assessment Methodology	7
14.4 Assessment Assumptions and Limitations	13
14.5 Stakeholder Engagement	13
14.6 Baseline Conditions.....	21
14.7 Assessment of Likely Significant Effects	26
14.8 Mitigation and Enhancement.....	27
14.9 Residual Effects	28
14.10 Cumulative and In-combination Effects.....	28
14.11 Summary	29

List of Tables:

Table 14.1: Air Quality Objectives for NO ₂ , PM ₁₀ and PM _{2.5}	7
Table 14.2: Summary of Consultation	14
Table 14.3: Scoping Opinion Response	15
Table 14.4: Section 42 Response	19
Table 14.4: Passive Diffusion Tube Monitoring Location Data (2018 – 2023).....	25
Table 14.5 Defra Predicted Background Concentrations at the Application Site in 2022	26
Table 14.6: Summary of Effects, Mitigation and Residual Effects	33

14. Air Quality

14.1 Introduction

14.1.1 This Chapter considers the likely significant effects to air quality as a result of the Proposed Development. The focus is on the potential effects to air quality which would be generated by the Proposed Development at existing sensitive receptors during the following processes:

- Dust emissions during the construction phase of the Proposed Development;
- Road Traffic emissions during the construction, operational and decommissioning phases; and
- Emissions from plant and equipment during the construction, operational and decommissioning phases of the Proposed Development.

14.1.2 The pollutants of concern for human health from construction and operational road traffic are nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}). During construction, there is also the potential for impacts to occur from dust soiling and elevated PM₁₀ emissions.

14.1.3 Please see **Appendix 1.4 -EIA Statement of Expertise [EN010163/APP/6.3.1]** for further details on the lead author.

14.1.4 This ES chapter is supported by **Appendix 14.1 – Air Quality Appendices [EN010163/APP/6.3.14]**.

14.2 Legislation and Planning Policy

14.2.1 The Air Quality Chapter has been prepared with consideration of the following legislation:

- The Environment Act 1995¹;
- The Environment Act 2021²;
- The Air Quality strategy for England, Scotland, Wales and Northern Ireland³; and
- The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁴.

¹ The Stationery Office (1995) The Environment Act 1995 (Part IV), London

² The Stationery Office (2021) The Environment Act 2021, London

³ Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland – [online] (Last accessed: 10/03/2025), Available at: www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1

⁴ Environmental Protection (2023) The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 – [online] (Last accessed: 10/03/2025), Available at: [The Environmental Targets \(Fine Particulate Matter\) \(England\) Regulations 2023](https://www.gov.uk/government/consultations/the-environmental-targets-fine-particulate-matter-england-regulations-2023).

14.2.2 The Air Quality Chapter has been prepared with consideration of the following policy and guidance documents:

- Overarching National Policy Statement for Energy (EN-1)⁵
- National Policy Statement for Renewable Energy Infrastructure (EN-3)⁶
- The National Planning Policy Framework (NPPF)⁷;
- Planning Practice Guidance (PPG)⁸;
- Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction⁹;
- Environmental Protection UK (EPUK), and IAQM Land-Use Planning & Development Control: Planning for Air Quality¹⁰;
- Defra Local Air Quality Management Technical Guidance (LAQM.TG(22))¹¹;
- Design Manual for Roads and Bridges (DMRB) guidance¹²;
- Defra PM_{2.5} Targets: Interim Planning Guidance¹³;
- Institute of Air Quality Management A guide to the assessment of air quality impacts on designated nature conservation sites¹⁴; and
- Bassetlaw District Council Core Strategy & Development Management Policies Development Plan Document (DPD)¹⁵.

14.2.3 Further details of the Legislation, Policy and guidance used within this Chapter are outlined within **Appendix 14.1(A) – Air Quality Appendices [EN010163/APP/6.3.14]**.

⁵ DESNZ (2023) Overarching National Policy Statement for Energy (EN-1) [online] (Last accessed: 10/03/2025), Available at: <https://assets.publishing.service.gov.uk/media/65bbfbd709fe1000f637052/overarching-nps-for-energy-en1.pdf>

⁶ DESNZ (2023) National Policy Statement for Renewable Energy Infrastructure (EN-3) [online] (Last accessed: 10/03/2025), Available at: <https://assets.publishing.service.gov.uk/media/65a7889996a5ec00d731aba/nps-renewable-energy-infrastructure-en3.pdf>

⁷ Ministry of Housing, Communities & Local Government (2025) National Planning Policy Framework, Department for Communities and Local Governments, London

⁸ Ministry of Housing, Communities & Local Government (2019) Planning Practice Guidance, London

⁹ Institute of Air Quality Management (2024) Guidance on the assessment of dust from demolition and construction v2.2 – [online], (Last accessed: 10/03/2025), Available at: <https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf>

¹⁰ Environmental Protection UK and Institute of Air Quality Management (2017), Land-Use Planning & Development Control: Planning For Air Quality v1.2 – [online] (Last accessed: 10/03/2025), Available at: iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf

¹¹ Defra (2022) Local Air Quality Management Technical Guidance (TG22) – [online] (Last accessed: 10/03/2025), Available at: <https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>

¹² Design Manual for Roads and Bridges (2024) LA 105 Air quality (vertical barriers) (Last accessed: 10/03/2025), Available at: [af7f4cda-08f7-4f16-a89f-e30da703f3f4](https://www.dmr.gov.uk/assets/DMRB-LA105-Air-quality-vertical-barriers.pdf)

¹³ Defra (2024) PM_{2.5} Targets: Interim Planning Guidance (Last accessed: 10/03/2025), Available at: <https://uk-air.defra.gov.uk/pm25targets/planning>

¹⁴ Institute of Air Quality Management, (2020) A guide to the assessment of air quality impacts on designated nature conservation sites – [online], (Last accessed: 10/12/2024) Available at: <https://www.iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf>

¹⁵ Bassetlaw District Council (2011) Bassetlaw District Council Core Strategy & Development Management Policies DPD – [online] (Last accessed: 10/03/2025), Available at: <https://www.bassetlaw.gov.uk/media/1543/cs1adoptedcorestrategy.pdf>

Air Quality Strategy

- 14.2.4 The European Union has set limit values for NO₂, PM₁₀ and PM_{2.5}; these are legally binding and have been implemented into English legislation by The Air Quality Standards Regulations 2010¹⁶ and The Air Quality Standards (Amendment) Regulations 2016¹⁷.
- 14.2.5 The Air Quality Objectives (AQOs) for NO₂, PM₁₀ and PM_{2.5} are set out in **Appendix 14.1(A) – Air Quality Appendices [EN010163/APP/6.3.14]**. The AQOs for NO₂, PM₁₀ and PM_{2.5} were to have been achieved by 2005, 2004 and 2020 respectively and continue to apply in all future years thereafter.
- 14.2.6 The Environment Act 2021 acts as the UK's new framework of environmental protection and came into force on 1st April 2022. With regard to air quality, the Environment Act 2021 establishes a legally binding duty on the UK Government to bring forward at least two new air quality targets in secondary legislation. This was implemented through the Environmental Improvement Plan which outlines new PM_{2.5} targets for future years. These are a long term maximum annual mean target of 10 µg/m³ to be achieved by 2040 and an interim target of 12 µg/m³ to be achieved by 31st January 2028.
- 14.2.7 In addition, the more recently published Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁴ set out a maximum Annual Mean Concentration Target (AMCT) for PM_{2.5} of 10 µg/m³ to be achieved by 2040 and a Population Exposure Reduction Target (PERT) of 35% compared to 2018 to be achieved by 2040. These targets are expected to focus on reducing concentrations of, and exposure to, PM_{2.5}.
- 14.2.8 Additionally, a new Air Quality Strategy has been published in April 2023 which sets out a framework which should be followed by local authorities in support of Defra's long term air quality goals including new PM_{2.5} targets¹⁸.
- 14.2.9 Defra has recently published their PM_{2.5} Targets: Interim Planning Guidance¹³ to advise on how developments can demonstrate appropriate consideration of the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023⁴ in the planning application process.

¹⁶ The Stationery Office (2010) Statutory Instrument 2010, No 1001, The Air Quality Standards Regulations 2010, London

¹⁷ The Stationery Office (2016) Statutory Instrument 2016, No 1184, The Air Quality Standards (Amendment) Regulations 2016, London

¹⁸ Defra(2023) Air Quality Strategy: framework for local authority delivery

Table 14.1: Air Quality Objectives for NO₂, PM₁₀ and PM_{2.5}

Pollutant	Time Period	Objective
NO ₂	1-hour Mean	200 µg/m ³ Not to be exceeded more than 18 times a year
	Annual Mean	40 µg/m ³
PM ₁₀	24-hour Mean	50 µg/m ³ Not to be exceeded more than 35 times a year
	Annual Mean	40 µg/m ³
PM _{2.5}	Annual Mean	20 µg/m ³
µg/m ³ – microgram per cubic meter.		

- 14.2.10 The AQOs apply at locations where members of the public are likely to be regularly present and exposed over the averaging period of the AQO. Examples of where the annual mean AQOs should apply are provided in the Local Air Quality Management Technical Guidance (LAQM.TG(22)) and include building façades of residential properties, schools and hospitals. The annual mean AQOs are not relevant for the building façades of offices or other places of work where members of the public do not have regular access, kerbsides or gardens.
- 14.2.11 The 24-hour mean AQO for PM₁₀ is considered to apply at the same locations as the annual mean AQO, as well as in gardens of residential properties and at hotels.
- 14.2.12 The 1-hour mean AQO for NO₂ also applies wherever members of the public might regularly spend 1-hour or more, including outdoor eating locations, pavements of busy shopping streets, car parks and bus stations which are not fully enclosed. The 1-hour mean AQO does not apply at kerbside sites where the public do not have regular access.
- 14.2.13 Therefore, in line with LAQM.TG(22), since the Site is only to be accessed by construction workers during construction and decommissioning phases, and Operations and Management personnel for land management during operation, only the short term objective for NO₂ (the 1-hour mean NO₂ AQO) applies to the Site.
- 14.2.14 However, in line with LAQM.TG(22), both the long term (annual mean AQOs for NO₂, PM₁₀ and PM_{2.5}) and short term objectives (the 1-hour mean NO₂ and 24-hour mean PM₁₀ AQOs) apply to any high sensitivity receptors (residential, schools or hospitals) within 200 m of the anticipated construction traffic routes.

14.3 Assessment Methodology

Construction

Screening Criteria for Construction Traffic

- 14.3.1 The impacts of vehicle emissions (NO₂, PM₁₀ and PM_{2.5}) associated with the construction of the Proposed Development have the potential to affect existing sensitive receptors located at the roadside of the proposed construction traffic route. During construction the access points shown on **Figure 2.1 – Indicative Site Layout [EN010163/APP/6.4.2]** are considered.
- 14.3.2 The Construction Phase of the Proposed Development is expected to last 24 months.
- 14.3.3 The EPUK/IAQM planning guidance⁹ sets out thresholds for traffic generation for both construction and operational phases, that have the potential to cause impacts to air quality at which point a detailed assessment of road traffic impacts should be undertaken. As the Proposed Development is not within or adjacent to an Air Quality Management Area (AQMA) (i.e. an area where Air Quality Objectives are exceeded or likely to be exceeded) the criteria considered for this assessment are as follows:
- Change of light duty vehicles (LDV) flows of more than 500 annual average daily traffic (AADT); and
 - Change of heavy-duty vehicles (HDV) flows of more than 100 AADT.
- 14.3.4 A criterion of 1000 AADT and/or 200 HDV AADT increase will be considered for designated ecological receptors within 200m of the road which may be impacted by construction phase traffic, as outlined within IAQM guidance for designated sites¹¹ and Design Manual for Roads and Bridges (DMRB)¹².

Non-Road Mobile Machinery (NRMM) Emissions

- 14.3.5 Exhaust emissions of oxides of nitrogen (NO_x), PM₁₀ and PM_{2.5} from Non-Road Mobile Machinery (NRMM) associated with construction sites may have a significant effect on local air quality. These emissions have been screened in line with LAQM.TG(22)¹⁰ and IAQM Guidance⁸.
- 14.3.6 The IAQM construction guidance⁸ states that “Experience of assessing the exhaust emissions from on-site plant (also known as non-road mobile machinery or NRMM) and site traffic suggests that they are unlikely to make a significant impact on local air quality, and in the vast majority of cases they will not need to be quantitatively assessed.”

- 14.3.7 On that basis, there are expected to be no likely significant effects to air quality at existing sensitive human and ecological receptors from NRMM emissions and so these have been scoped out of further assessment.

Dust Emissions from Construction Phase

- 14.3.8 In addition, dust emissions associated with construction activities may impact local air quality concentrations. The works being undertaken during the construction phase include earthworks, construction and trackout. A construction dust assessment combines the dust emission magnitude with sensitivity of nearby receptors to determine the risk of dust impacts to recommend appropriate mitigation. Due to the Proposed Development's proximity to nearby sensitive receptors such as residential properties, education buildings and ecological sites, the Site is considered to have a high risk of impact when unmitigated. This is considered a worst case, robust assessment. The full methodology of the construction dust assessment and identification of sensitive receptors is outlined within **Appendix 14.1(C) – Air Quality Appendices [EN010163/APP/6.3.14]**.

Operation

Road Traffic Emissions

- 14.3.9 Air quality effects at sensitive human and ecological receptors from the operational phase of the Proposed Development have been scoped out from the assessment via the formal EIA Scoping process, which was agreed with PINS via their formal EIA Scoping Opinion (see **Appendix 1.2 - EIA Scoping Opinion [EN010163/APP/6.3.2]**), as traffic flows are expected to be minimal.
- 14.3.10 As confirmed by the Applicant's transport consultants, there will be a limited number of vehicle movements associated with the operation of the Proposed Development, expected to be approximately 14 two-way movements daily on average to the Site for the maintenance of equipment (**Appendix 13.1 – Transport Assessment [EN010163/APP/6.3.13]**).
- 14.3.11 As such, it is not anticipated that there are any potential likely significant environmental effects from operational phases of the Proposed Development as traffic is expected to be very limited and as such associated impacts have been scoped out.
- 14.3.12 Additionally, there will be no permanent users of the Proposed Development. The Site will be accessed by Operations and Management personnel, as well as for land

management as required. Therefore, no assessment of the Site's suitability, in terms of air quality, is required.

Combustion Sources

- 14.3.13 As no combustion plant is to be present on Site, it is not anticipated that there are any potential likely significant environmental effects from operational phases of the Proposed Development as there will be no combustion emissions during the operational phase of the Proposed Development. Air quality impacts arising from combustion sources are therefore scoped out of this assessment.

Decommissioning

- 14.3.14 The Proposed Development is anticipated to comprise an operational lifespan of a maximum of 40 years, by which time it is expected that baseline air quality conditions will be much improved due to improving vehicle technology and emerging national policy to reduce vehicle emissions. The impacts of the decommissioning phase are often similar to, or of a lesser magnitude than the air quality impacts associated with road traffic emissions generated during the construction phase.
- 14.3.15 At this stage it is assumed that the number of construction vehicles and NRMM during the decommissioning phase will be no greater than during construction.
- 14.3.16 As such, decommissioning has not been assessed separately with the construction phase effects presenting a worst-case scenario.

Key Receptors

- 14.3.17 Existing sensitive receptors at the roadside of the construction traffic routes, have the potential to be affected by an increase in emissions of NO₂, PM₁₀ and PM_{2.5} from construction traffic for the duration of the construction phase, anticipated to be approximately 24 months.
- 14.3.18 The sensitivity of existing receptors to human health effects from construction traffic emissions has been determined utilising professional judgement in line with the IAQM construction guidance⁸ depending on the amount of time spent at the receptor location.
- 14.3.19 There are high sensitivity receptors including residential dwellings, healthcare facilities and schools located along the proposed construction routes. Construction routes associated with the Proposed Development are outlined within **Chapter 13 – Transport and Access [EN010163/APP/6.2.13]**. Commercial and industrial uses

- are also present however, they are considered to be medium to low sensitivity receptors. Figure 14.1 (embedded into this Chapter) shows the locations of sensitive receptors in close proximity to the proposed construction routes.
- 14.3.20 There are no internationally designated ecological sites within 200m of the proposed construction routes, therefore there are no likely significant effects to national sensitive habitats or species. The closest statutory designated ecological receptor is Clarborough Tunnel, which is classed as a Site of Special Scientific Interest (SSSI), which is located further than 200m from the proposed construction and operational routes. However, there are various low sensitivity locally designated habitat sites, for example Sites of Importance for Nature Conservation (SINCs), both within and adjacent to the Site boundary, as shown in Figure 14.1 (with the relevant locally designated sites taken from **Figure 7.2.3 of Appendix 7.2 – Designated Sites [EN010163/APP/6.3.7]**). The only low sensitivity ecological receptor identified within 50 m of a construction access point (Compound A) from Gainsborough Road is West Burton Meadow SINC. However, the number of vehicle movements on all construction and operational routes is expected to be below the threshold to cause a likely significant effect (additional vehicle movements of greater than 1000 AADT (including 200 HDVs) per day as outlined in the DMRB¹² and IAQM guidance¹¹), which indicates that no likely significant effects are expected on designated ecological sites.

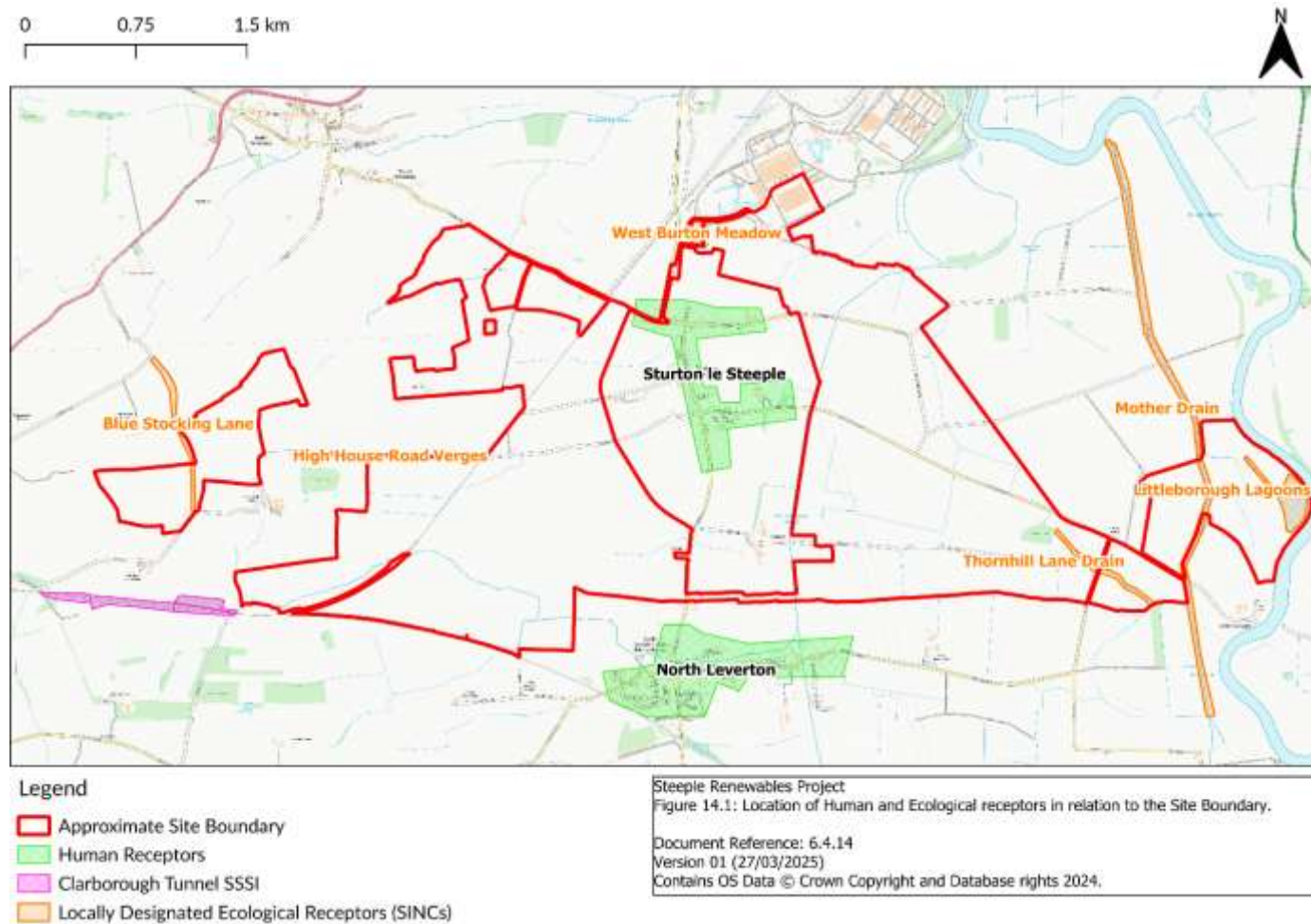


Figure 14.1: Location of Human and Ecological receptors in relation to the Site Boundary. Contains OS Data © Crown Copyright and Database rights 2024.

Assessment of Significance

Construction and Decommissioning Traffic

- 14.3.21 With reference to the EPUK/IAQM planning guidance⁹, if the changes in vehicle flows on local roads that a development generate, are below the relevant screening criteria for human receptors (500 LDV and/ or 100 HDV) and ecological receptors (1000 total AADT and/or 200 HDV) for the determination of whether emissions from road traffic generated by a development have the potential for significant air quality effects, then there should be no requirement to carry out a detailed air quality assessment and the effect to air quality on sensitive human and ecological receptors can be considered as negligible and leads to a not significant effect.

14.4 Assessment Assumptions and Limitations

- 14.4.1 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- It has been assumed that the construction stage mitigation measures outlined in **Appendix 14.1(C) – Air Quality Appendices [EN010163/APP/6.3.14]** will be effectively implemented through the **OCEMP [EN010163/APP/6.4.3]** and **Outline Construction Traffic Management Plan [EN010163/APP/6.3.13]** submitted in support of the planning application and, as such, no significant effects will arise from construction dust activities; and
 - The ability to predict likely significant air quality effects is dependent upon the traffic flow and routing predictions made by the Transport Consultants for the Proposed Development.

14.5 Stakeholder Engagement

- 14.5.1 Table 14.2 provides an overview of the consultation that has been undertaken to inform the Proposed Development and EIA, including the consideration of likely significant effects and the methodology for assessment. Further details of the correspondence with the local authority, which took place 10th June 2024, are outlined within **Appendix 14.1(B) – Air Quality Appendices [EN010163/APP/6.3.14]**.

Table 14.2: Summary of Consultation

Consultee	Summary of consultation	How is this addressed
Bassetlaw District Council (BDC) Environmental Health	<p>Hoare Lea provided BDC information regarding the assessment methodology, specifically the monitoring sites considered suitable for model verification for the baseline and future year assessments, where required. BDC requested further clarification on the diffusion tube locations.</p> <p>Response: Hoare Lea provided clarity on the monitoring locations. Acceptance of the methodology was received by BDC.</p> <p>A copy of the consultation with BDC is provided in Appendix 14.1(B) – Air Quality Appendices [EN010163/APP/6.3.14].</p>	No comments to be addressed as methodology was agreed.

- 14.5.2 A summary of Planning Inspectorate (PINS) comments within the Scoping Opinion is included within Table 14.3.

Table 14.3: Scoping Opinion Response

Planning Inspectorate Comment	How is this addressed
<p>The Inspectorate does not consider that sufficient information has been provided at this stage regarding dust suppression techniques and the location of potential dust sensitive environmental receptors to support the scoping out of dust emissions during construction and decommissioning from further assessment.</p> <p>An assessment of dust impacts that conforms with relevant guidance (e.g., the Institute of Air Quality Management (IAQM)) on construction dust should be provided to demonstrate that mitigation measures proposed are appropriate for the scale of effects.</p> <p>The Inspectorate considers that once operational, the Proposed Development is unlikely to result in significant air quality effects as the components of the Proposed Development do not produce dust emissions.</p>	<p>It is considered that due to the size and proximity of development to nearby sensitive receptors that the highest risk of impact, 'high risk', has been assessed in line with the IAQM guidance and therefore associated high risk mitigation measures will be implemented and included in the OCEMP [EN010163/APP/6.3.4]. The list of high-risk measures mitigation measures is outlined within Appendix 14.1(C) – Air Quality Appendices [EN010163/APP/6.3.14] and includes details from the construction dust risk assessment. These measures would also be applicable to the decommissioning phases.</p>
<p>The Inspectorate agrees that emissions from NRMM can be scoped out provided information on the type, duration and location of NRMM is shown in the ES to demonstrate that this would not result in LSE.</p>	<p>Further information on NRMM will be included within the OCEMP [EN010163/APP/6.3.4]. All NRMM will adhere to European regulations (EU 2016/1628) demonstrating compliance with emission limits.</p>
<p>The Applicant proposes to scope out impacts to air quality at sensitive human and ecological receptors from the operational phase on the basis that road traffic flows during operation are expected to be minimal and no combustion plant would be present on site.</p>	<p>It has been confirmed by the Applicant that initial construction traffic is likely to fall below the Operational Phase the EPUK/IAQM planning guidance with traffic flows of 40 two-way AADT. As such, the impact to air quality can be considered as negligible and leads to a not significant effect. Further details on the operational phase traffic movements can be found in Chapter 13: Transport and Access [EN010163/APP/6.4.123]</p>

Planning Inspectorate Comment	How is this addressed
The Inspectorate agrees that operational vehicle emissions may be scoped out from further assessment, subject to the description of development demonstrating that vehicle numbers are sufficiently low as to not trigger the thresholds for an air quality assessment.	
<p>The Scoping Report proposes to scope out a separate assessment of air quality impacts associated with road traffic emissions on the basis that potential air quality effects during decommissioning are anticipated to be similar to, or of lesser magnitude than the construction phase and proposes to scope this matter out.</p> <p>The Inspectorate agrees that this matter can be scoped out, subject to evidence provided in the ES demonstrating that road traffic emission effects during the decommissioning phase would be similar to or less than during the construction phase, or there is clear agreement with relevant consultation bodies.</p>	<p>It has been confirmed by the Applicant that initial construction traffic is likely to fall below the Construction Phase the EPUK/IAQM planning guidance with traffic flows of 66 LDV and 69 HDV AADT across the 24 months construction phase period.</p> <p>It is considered that the decommissioning phase traffic flows will be similar to the construction phase as confirmed by the transport consultants within Chapter 13: Transport and Access [EN010163/APP/6.4.13]. As such, the impact to air quality can be considered as negligible and not significant.</p>
<p>The Scoping Report states that the study area for sensitive ecological receptors will be up to 50m from the Site boundary or 50m from the edge of the routes used by construction vehicles. The ES should provide justification with reference to the relevant guidance for the study area for ecological receptors and agree this where possible with relevant consultation bodies.</p> <p>The ES should include a plan showing the extent of the final study area, including proposed construction routes, the location of receptors (human and ecological) considered in the assessment.</p>	<p>It has been confirmed by the Applicant that construction traffic is to be routed as detailed within section 14.3.1. Further details of the construction routes can be found in Chapter 13: Transport and Access [EN010163/APP/6.4.13].</p> <p>Following a review of the construction routes, it has been confirmed that there are no statutory designated ecological sites (SSSI/SPA/SAC/Ramsar) within 50m of the proposed construction routes. However, a locally designated SINC - West Burton Meadow, has been identified to be located within 50 m of the Gainsborough Road access point to the construction Primary Compound A. As such, this SINC is sensitive to fugitive dust emissions from trackout activities. An assessment of the potential dust</p>

Planning Inspectorate Comment	How is this addressed
	<p>impacts from trackout has therefore been undertaken within Appendix 14.1(C) – Air Quality Appendices [EN010163/APP/6.3.14].</p> <p>Clarborough Tunnel SSSI, classed as a medium sensitivity ecological receptor and the West Burton Meadow SINC classed as a low sensitivity ecological receptor, are both located within 50 m of the Site Boundary. In addition, there are five locally designated and low sensitivity SINC's within the Site Boundary. Therefore, the SSSI and locally designated SINC's are sensitive to fugitive dust emissions during the construction phase. An assessment of construction dust risk on these ecological receptors has therefore been undertaken within Appendix 14.1(C) - Air Quality Appendices [EN010163/APP/6.3.14].</p> <p>Although there are sensitive ecological receptors within 200m of the roads affected by construction traffic, since the construction traffic AADT falls below the (1000 AADT / 200 HDV) criteria as detailed within section 14.6.5 and 14.6.6 the effects of construction traffic on local air quality at designated ecological receptors would be considered insignificant and was scoped out of this assessment.</p>
The Scoping Report details that dispersion modelling calculations (if required) would be verified using data gathered in the baseline air quality survey and Local Authority monitoring stations where appropriate. From the information provided within the Scoping Report it is unclear whether primary data collection is planned.	Consultation with BDC council has been undertaken and the methodology, including monitoring stations to use for model verification, was agreed as outlined within Table 14.2 and Appendix 14.1(B) -Air Quality Appendices [EN010163/APP/6.3.14] .

Planning Inspectorate Comment	How is this addressed
Effort should be made to reach agreement with relevant consultation bodies including the local authorities, as to whether any additional survey or monitoring work is required to inform the baseline, including for other pollutants.	Following receipt of traffic data, traffic flows during the construction, operational and decommissioning phases of the Proposed Development are to fall below the screening criterion for either sensitive human (500 LDV and/ or 100 HDV) or ecological receptors (1000 LDV and/ or 200 HDV), as such detailed dispersion modelling is not required. Further details of the construction routes can be found in Chapter 13: Transport and Access [EN010163/APP/6.4.13] .

14.5.3 A summary of the responses relating to Air Quality received during statutory consultation is included within Table 14.4.

Table 14.4: Statutory Consultation Section 42 Response

Statutory Consultation Section 42 Natural England Comments	How is this addressed
<p>Due to the proximity of the SSSI to the development site, construction traffic emissions could cause an adverse effect to the SSSI, i.e. via ammonia, NOx Emissions & subsequent Nitrogen deposition. Chapter 14 (Air Quality) sets out the screening criteria used for consideration of impacts to ecological receptors: 1000 AADT and/or 200 HDV AADT increase on the Affected Road Network (ARN) within 200m of a sensitive site. Paragraph 14.3.23 states Construction traffic is unlikely to be routed within 200m of Clarborough Tunnel SSSI, and that any change in traffic is expected to be below the relevant thresholds anyway. NE welcome this consideration, and advise that where this is the case, impacts could be ruled out. Nonetheless, this information should be clearly illustrated in ES to evidence the likely absence of any traffic emission related impacts to Clarborough Tunnel SSSI.</p>	<p>Construction traffic routing is not proposed to travel within 200m of the Clarborough Tunnel SSSI as shown in Inset 13.3 of Chapter 13: Transport and Access [EN010163/APP/6.2.13] ES chapter. Therefore, there are not expected to be any significant impacts to ecological receptors identified at Clarborough Tunnel SSSI.</p>
<p>Due to the proximity of the SSSI to the development site, construction dust could cause an adverse effect to the SSSI, i.e. via smothering. Appendix 14.3 includes a dust assessment, in line with IAQM guidance. The assessment identified the SSSI as a sensitive receptor within 50m, which is welcomed, although Table A1.9 states that ecological sensitivity is 'low', despite the SSSI being of medium sensitivity. NE would advise that ecological sensitivity should be classed as 'Medium' as a result of the SSSI.</p> <p>2.2.3.</p> <p>Nonetheless, NE consider the mitigation measures outlined in Table A14.11 likely to be sufficient to avoid a significant adverse effect to the SSSI. These should be secured within the oCEMP and DCO requirements. Table A14.11 states the Dust Management Plan 'may include' monitoring. NE advise the plan must include monitoring, which should form the basis for the</p>	<p>The Clarborough Tunnel SSSI has been considered within the Construction Dust Risk Assessment in Appendix 14.1(C) - Air Quality Appendices [EN010163/APP/6.3.14]. The SSSI is classified as a medium sensitivity receptor, which when combined with distance from the source of dust emission is defined as having a low area sensitivity, in line with IAQM guidance.</p> <p>However, given that there is a high risk of unmitigated dust risks from dust soiling to human receptors, the highest level of mitigation measures have been proposed for implementation across the Site.</p>

Statutory Consultation Section 42 Natural England Comments	How is this addressed
plan, especially at the SSSI & other sensitive ecological receptors, to enable a flexible approach to be taken & action to be taken where unacceptable dust emissions are identified.	The Applicant has committed to producing a Dust Management Plan when detailed construction information is available, as secured within the OCEMP [EN010163/APP/6.3.4] . . This will detail how to practically implement the mitigation measures proposed, including monitoring.

14.6 Baseline Conditions

Site Description and Context

- 14.6.1 The Site (see **Figure 1**^{Error! Reference source not found.}**1 – Site Location Plan [EN010163/APP/6.4.1]**) extends to 888.3 hectares (ha) and comprises multiple agricultural fields with the field boundaries defined by hedgerow and individual trees.
- 14.6.2 The northern area of the Site also includes a section of the existing West Burton Power Station site, covering the area around the existing West Burton Power Station 400 kV substation. There is a network of roads located both within the Site and adjacent to the Site boundary. The River Trent lies adjacent to the eastern boundary of the Site.
- 14.6.3 Within the wider surrounding area (zone of influence of 6 km from the Site) there are the following settlements:
- Sturton le Steeple;
 - Knaith;
 - North Leverton with Hablesthorpe;
 - Fenton;
 - South Leverton;
 - Claborough;
 - North Wheatley and South Wheatley; and
 - Gainsborough.

Baseline Air Quality Review and Local Air Quality Monitoring

- 14.6.4 A baseline air quality review has been undertaken to determine existing air quality within the vicinity of the Proposed Development with reference to the following:
- Air quality monitoring data from local authorities Annual Status Reports (ASR)^{19,20, 21}; and

¹⁹ Bassetlaw District Council (2022) 2022 Air Quality Annual Status Report (ASR) – [online] (Last accessed: 26/03/2025)

²⁰ West Lindsey District Council (2023) Annual Progress Report 2023 – [online] (Last accessed: 26/03/2025), Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2024-02/Air%20Quality%20Report%202023.pdf>

²¹ West Lindsey District Council (2024) Annual Progress Report 2024 – [online] (Last accessed: 26/03/2025), Available at: <https://www.west-lindsey.gov.uk/sites/default/files/2024-06/Air%20Quality%20Report%202024.pdf>

- Background pollution maps from the Department for Environment, Food and Rural Affairs (Defra) Local Air Quality Management (LAQM) website²².
- 14.6.5 The Site is not located within an AQMA and is approximately 18.6 km north west from the nearest AQMA, named 'Lincoln NO₂ AQMA', which is located in City of Lincoln Council's (CoLC's) administrative area. This AQMA was declared in 2001, for exceedances of the annual mean NO₂ Air Quality Objective (AQO) only.
- 14.6.6 The Proposed Development is located within the Bassetlaw District Council (BDC) administrative area. The Proposed Development is also located in proximity to the administrative area of West Lindsey District Council (WLDC).
- 14.6.7 There is currently no automatic monitoring of NO₂, PM₁₀ or PM_{2.5} undertaken by BDC or WLDC.
- 14.6.8 BDC and WLDC use passive diffusion tube monitoring locations to record annual mean NO₂ concentrations within their respective administrative areas. Monitoring data from passive diffusion tube monitoring locations within the BDC and WLDC administrative area has been provided by the most recent BDC ASR 2022, WLDC ASR 2023 and WLDC ASR 2024.
- 14.6.9 The pollutant concentrations recorded in 2020 and 2021 are not considered to be representative of "normal" air quality conditions. Whilst it is expected that as a result of the COVID-19 pandemic behaviours will change in the future, the long-term impact of this on air quality is currently unknown and therefore the use of 2020 and 2021 data will be omitted from any analysis, but has been included for information. Monitoring data for 2023 is available for use as the latest year of representative monitoring data. WLDC has published 2023 data, however this is currently not available from BDC.
- 14.6.10 There are no passive diffusion tube monitoring locations in the immediate vicinity of the Site, however there are ten passive diffusion tube monitoring locations positioned within 6 km of the Site. Three passive diffusion tube monitoring locations are situated in BDC's administrative area whereas seven passive diffusion tube monitoring locations are located within the WLDC area of administration. Table 14.5 provides the recorded annual mean NO₂ concentrations at the nearest passive diffusion tube monitoring locations to the Proposed Development from the

²² Defra (2020) Background Pollution Maps – 2018 – [online], (Last accessed: 01/07/2024), Available at: uk-air.defra.gov.uk/data/laqm-background-maps?year=2018

years 2018 to 2023. The locations of the passive diffusion tube monitoring locations are illustrated in Figure 14.2, embedded within this chapter.

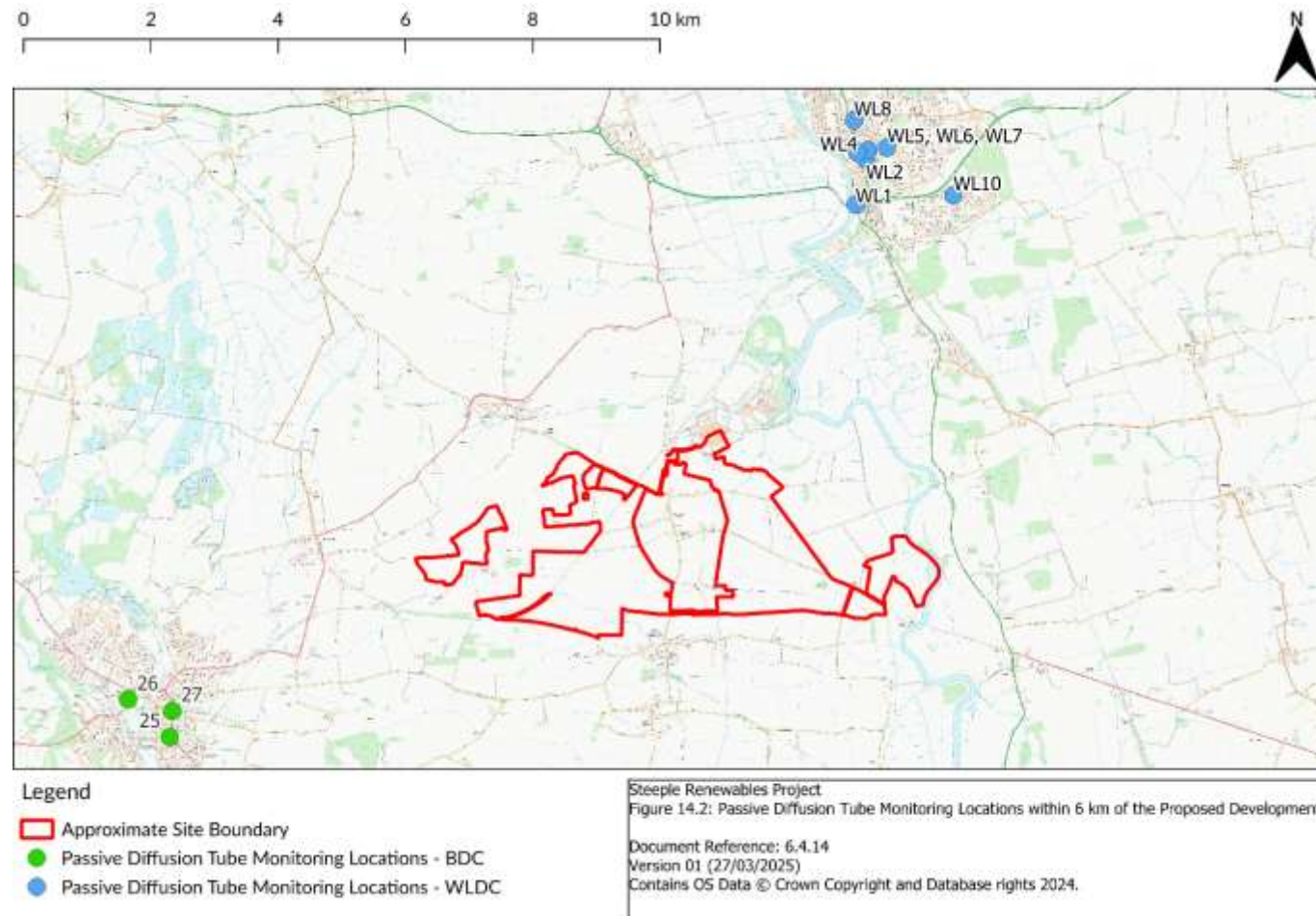


Figure 14.2: Passive Diffusion Tube Monitoring Locations within 6 km of the Proposed Development. Contains OS Data © Crown Copyright and Database rights 2024.

Table 14.5: Passive Diffusion Tube Monitoring Location Data (2018 – 2023)

Site ID	Site Type	Local Authority	Dist. (km).	Annual Mean NO ₂ Concentration (µg/m ³)					
				2018	2019	2020	2021	2022	2023
WL1	Road side	WLDC	4.6	24.6	22.8	16.3	20.6	-	-
WL2	Road side	WLDC	5.3	18.6	19.0	14.4	15.0	14.1	13.2
WL4	Road side	WLDC	5.3	21.4	20.7	15.2	16.7	15.3	14.6
27	Road side	BDC	5.4	28.2	28.7	22.6	23.2	22.8	N/A
WL3	Road side	WLDC	5.4	20.6	17.3	14.2	13.8	14.1	12.7
25	Road side	BDC	5.5	25.7	24.7	21.7	21.3	20.8	N/A
WL10	Road side	WLDC	5.6	16.8	15.0	12.0	11.7	12.3	11.0
WL5, WL6, WL7	Industrial	WLDC	5.6	11.5	11.3	9.1	8.7	9.1	7.6
WL8	Kerbside	WLDC	5.7	15.0	14.7	11.9	11.3	10.6	9.8
26	Road side	BDC	6.0	31.1	30.1	23.8	26.1	25.2	N/A
NOTE: “N/A” represents monitoring data not publicly published at time of writing “-” represents no monitoring data being recorded									

- 14.6.11 There have been no exceedances of the annual mean NO₂ AQO of 40 µg/m³ at any of the passive diffusion tube monitoring locations within 6 km of the Site in 2023, the most recent year of available monitoring data. The passive diffusion tube monitoring location with the highest concentration in 2023 was Site ID: WL4, recording an annual mean NO₂ concentration of 14.6 µg/m³ or 37% of the annual mean AQO.
- 14.6.12 The 1-hour mean AQO for NO₂ is 200 µg/m³ and should not be exceeded more than 18 times within a year. In line with LAQM.TG(22)¹⁰, an annual mean NO₂ concentration of 60 µg/m³ or above is often used to indicate a possible exceedance of the 1-hour mean NO₂ AQO. There has been no recorded exceedance of the 60 µg/m³ threshold at any of the passive diffusion tube monitoring locations within 6 km of the Site in the baseline year 2023.

Defra Predicted Background Concentrations

- 14.6.13 The Defra predicted background concentrations²² have been obtained from the national maps published by Defra. These estimated concentrations are produced on a 1 km by 1 km grid basis for the whole of the UK. The Proposed Development falls into 27 grid squares. The minimum and maximum Defra predicted background concentrations²² for the Proposed Development for pollutants NO₂, PM₁₀ and PM_{2.5} are provided in Table 14.6 for 2023, the most recent year of available monitoring data.

2023
Table 14.6 Defra Predicted Background Concentrations at the Application Site in

Year	Annual Mean NO ₂ Concentration (µg/m ³)		
	NO ₂	PM ₁₀	PM _{2.5}
2023	5.3 – 11.1	10.3 – 16.6	5.5 – 7.8

- 14.6.14 It can be seen that the modelled Defra predicted background concentrations²² are below the respective AQO limits for pollutants NO₂, PM₁₀ and PM_{2.5} in 2023, the baseline year.

14.7 Assessment of Likely Significant Effects

Construction and Decommissioning

Construction and Decommissioning Dust Emissions

- 14.7.1 As outlined within Section 14.3, it is considered that due to the size and proximity of development to nearby sensitive receptors that the highest risk of impact, ‘high risk’, has been applied to the Site in line with the IAQM guidance. Therefore, associated high risk mitigation measures should be implemented. An assessment of construction dust risk has been undertaken within **Appendix 14.1(C) - Air Quality Appendices [EN010163/APP/6.3.14]**.
- 14.7.2 A list of the high risk mitigation measures are to be implemented and included as part of the **OCEMP [EN010163/APP/6.3.4]** and **Outline Decommissioning Plan [EN010163/APP/6.3.14]** to minimise dust emission during the construction phase and control impacts to a negligible level (outlined within **Appendix 14.1(C) - Air Quality Appendices [EN010163/APP/6.3.14]**). On that basis, there are expected to be **no significant effects** to air quality at existing sensitive receptors.

Construction and Decommissioning Traffic Emissions

- 14.7.3 The impacts of vehicle emissions (NO₂, PM₁₀ and PM_{2.5}) associated with the construction of the Proposed Development have the potential to effect existing sensitive receptors located at the roadside of the proposed construction routes for the anticipated construction period of 24 months.
- 14.7.4 The Applicant's transport consultants have provided traffic flows for the construction phase of the Proposed Development. Construction vehicles will access the Site via the access points shown on **Figure 2.1 – Indicative Site Layout [EN010163/APP/6.4.2]**
- 14.7.5 There is predicted to be an average of 116 LDV AADT and 36 HDV AADT construction vehicle flows on anticipated construction road links during the 24-month construction period.
- 14.7.6 When screened against the EPUK/ IAQM criteria for the potential of effects to air quality, predicted construction traffic flows are below the screening criteria (500 LDV's and or 100 HDV's) for detailed assessment. On this basis and in line with EPUK/ IAQM planning guidance⁹, the effect to air quality is considered to be **not significant**.
- 14.7.7 When considering the peak construction periods, month 7 is expected to be the peak delivery month with an additional anticipated 131 HDVs per day. Whilst this is above the EPUK/ IAQM threshold for the potential significant effects to air quality, it should be noted that this criteria relates to average vehicle numbers, rather than peak conditions. The peak construction traffic flows will be present on the road network for a short period of time and any effects will be transient, as such the effect to air quality is considered to be **not significant**.

14.8 Mitigation and Enhancement

Mitigation by Design

- 14.8.1 A **OCTMP [EN010163/APP/6.3.13]** and **OCEMP [EN010163/APP/6.3.4]** will be used to control activity during the construction phase, and as such emissions to air will be mitigated. Recommended mitigation measures to be implemented and included as part of a final CEMP to minimise dust emission during the construction and commissioning phase and control impacts to a negligible level and are outlined within **Appendix 14.1(C) - Air Quality Appendices [EN010163/APP/6.3.14]**.

- 14.8.2 Furthermore, routing arrangements during the construction period (and decommissioning) to ensure that they minimise travel through the village of Sturton le Steeple, which will be secured by DCO requirement as part of the **OCEMP [EN010163/APP/6.3.4]** and **OCTMP [EN010163/APP/6.3.13]**. As such, minimising emissions at sensitive receptors within the village of Sturton le Steeple.
- 14.8.3 Similarly, it is anticipated that dust and particulate matter emissions produced during decommissioning phase activities would be inherently controlled through the implementation of an Outline Decommissioning Plan **[EN010163/APP/6.3.14]** to a negligible impact level. The type of mitigation measures required to control the fugitive dust emission during the construction phase and therefore to be implemented during decommissioning are listed within **Appendix 14.1(C) – Air Quality Appendices [EN010163/APP/6.3.14]**.

14.9 Residual Effects

Construction

- 14.9.1 The measures implemented via the **OCTMP [EN010163/APP/6.3.13]** and **OCEMP [EN010163/APP/6.3.4]** (outlined within **Appendix 14.1(C) - Air Quality Appendices [EN010163/APP/6.3.14]**) are considered sufficient to minimise impacts to air quality from emissions associated with construction traffic and NRMM effects with regard to air quality. The residual effects are therefore considered to be negligible and therefore **not significant**.

14.10 Cumulative and In-combination Effects

- 14.10.1 The EIA also requires consideration of the cumulative effect of the Proposed Development in conjunction with other developments. Notable projects in close proximity to the Site that have the potential to impact on construction and operational phases are outlined within Table 2.9 of **Chapter 2: EIA Methodology [EN010163/APP/6.2.2]** of this ES.

On-site construction activities

- 14.10.2 In order for a cumulative impact of dust or NRMM emissions generated by on-site activities during construction to occur, ‘Committed Developments’ must have overlapping construction phases and be located within 500 m of the Proposed Development in line with IAQM Guidance to be considered in the cumulative effects assessment for Air Quality through onsite construction activities. This includes (as

referred to in Table 2.9 of **Chapter 2: EIA Methodology [EN010163/APP/6.2.2]** of this ES):

- ID 2 Gate Burton Energy Park (Ref: EN010131) - located 300m to the east;
- ID 8 Wood Lane Sola Farm (Ref: 20/00117/FUL) – adjacent to the west;
- ID 11 Sturton le Steeple Quarry (Ref: V/4386) – adjacent to the south-east; and
- ID14 New 400 kilovolt (kV) electricity transmission connection - North Humber to High Marnham (Ref: EN020034) - overhead lines

14.10.3 It is considered unlikely that on-site construction activities on any of the Other Developments listed above will be occurring simultaneously with on-site construction activities at the Proposed Development. Additionally, with the implementation of mitigation measures within their respective applications, it is anticipated that there would be no likely significant effects due to on-site construction activities, including dust or NRMM emission, at local receptors.

14.10.4 Furthermore, there is a consented quarry, Sturton le Steeple Quarry (Ref: 1/46/11/00002/R) adjacent to the Site. However, since the operations at the consented quarry are likely to be controlled by an environmental permit, the potential emissions to air from the consented quarry will be controlled. As such, the consented quarry is not anticipated to contribute to any significant cumulative effects from fugitive dust emissions. Therefore, the effect to air quality is considered to be insignificant.

Construction Traffic

14.10.5 The cumulative impacts of vehicle emissions (NO₂, PM₁₀ and PM_{2.5}) associated with the construction of the Proposed Development and other developments have the potential to effect existing sensitive receptors located at the roadside.

14.10.6 The Applicant's Transport Consultants have identified six cumulative schemes that, either in part or entirely, use the proposed construction traffic route for the Proposed Development, and additionally have the potential to overlap with forecast construction period from 2027 to 2029, as outlined in **Chapter 13: Transport and Access [EN010163/APP/6.4.13]** of this ES. This includes (as referred to in Table 2.9 of **Chapter 2: EIA Methodology [EN010163/APP/6.2.2]** of this ES):

- ID 5 West Burton Solar Project Ltd (Ref: EN010132)
- ID 7 Bumblebee Solar Farm (Ref: 22/00358/FUL)
- ID 8 Wood Lane Sola Farm (Ref: 20/00117/FUL)

- ID 9 West Burton C Battery Storage (Ref: 22/01713/FUL)
 - ID 11 Sturton le Steeple Quarry (Ref: V/4386)
 - ID 12 Bole Ings Ash Disposal Site (Ref: F/3581, and V/4079 (variation of conditions 11, 13, and 53 of planning permission 1/18/00234/CDM))
- 14.10.7 As outlined in Table 13.12: Construction Average Annual Daily Traffic (AADT) and Percentage Change (2027 and 2029) Including cumulative effects of **Chapter 13: Transport and Access [EN010163/APP/6.2.13]**, the maximum daily construction and workforce trip data, where available, for each site has been combined with the anticipated trip generation for the Proposed Development to illustrate the total cumulative traffic flows on the proposed construction route between the A1 Blyth Interchange and the Site.
- 14.10.8 When screened against the EPUK/ IAQM criteria for the potential of effects to air quality, predicted LDV flows are expected to be below the screening criteria (500 LDV's AADT on any one link) for detailed assessment.
- 14.10.9 However, the EPUK/ IAQM screening criteria for potential effects to air quality of HDV's (100 HDV's AADT) is expected to be exceeded on the length of the proposed construction route from A1 Blyth Interchange to the Site. Although, it should be noted that the way in which cumulative traffic flows have been calculated is extremely worst case by combining peak construction traffic flows for all developments listed above to provide maximum daily flows. In reality, the peak construction periods for all six cumulative schemes are unlikely to coincide and construction traffic flows will be lower than the worst case assumption made for the purposes of this ES which assumed all peak movements align.
- 14.10.10 In addition, as shown in Table 14.6, background air quality concentrations in the vicinity of the Site and the proposed construction routes are considerably below the relevant AQOs for NO₂, PM₁₀ and PM_{2.5}. It would therefore take a substantial change in concentration to lead to a significant impact or to cause an exceedance of the relevant AQOs. It is considered unlikely that the construction traffic flows will result in a significant change in air quality at sensitive receptors along the proposed construction traffic route.
- 14.10.11 As such, it is not considered likely that a cumulative impact to air quality from construction traffic will be **not significant**.

In-combination effects

- 14.10.12 Regarding in-combination effects, given that the residual effects associated with the construction and operational phases of the Proposed Development are predicted to be negligible on an air quality basis, it is not anticipated for there to be any significant in-combination effects on local receptors caused by air quality impacts. Should any significant in-combination effects occur, these will not be a result of air quality but a result of other factors considered, with air quality effects providing at worst a negligible contribution to any potential significant in-combination effects.
- 14.10.13 Effects relating to changes in traffic levels associated with the Proposed Development and the impact on human health and ecological receptors in regard to air quality is intrinsically included within the assessment approach of this Chapter. There are no significant adverse effects in this regard.

14.11 Summary

Introduction

- 14.11.1 This Air Quality ES Chapter focuses on the potential air quality effects at existing sensitive receptors during the construction phase.

Baseline Conditions

- 14.11.2 The Proposed Development is not located within or near to an Air Quality Management Area (AQMA).
- 14.11.3 Monitored concentrations in the vicinity of the Proposed Development show pollutant concentrations have been below the Air Quality Objectives (AQO) in 2023, the most recently available year of monitoring data.

Likely Significant Effects

- 14.11.4 Predicted construction traffic flows have been screened against the criteria within the Environmental Protection UK and Institute of Air Quality Management planning guidance criteria and considered to fall below the screening criterion (500 LDV and/or 100 HDV AADT), with average traffic flows of 116 LDV and 36 HDV AADT across the 24-month construction phase period. The effects of the decommissioning phase are likely to be similar to the construction phase.
- 14.11.5 In addition, dust emissions during the construction and decommissioning phases will be controlled via the **OCEMP [EN010163/APP/6.3.4]** and Outline

- Decommissioning Plan [EN010163/APP/6.3.14], respectively, and as such are considered to be negligible and therefore the effects are **not significant**.
- 14.11.6 Predicted operational traffic flows have been screened against the criteria within the EPUK and IAQM planning guidance criteria for human receptors and IAQM and DMRB criteria for ecological receptors and considered to be **not significant**.

Mitigation and Enhancement

- 14.11.7 Construction phase emissions to air will be controlled by an **OCEMP** [EN010163/APP/6.3.4] and **OCTMP** [EN010163/APP/6.3.13].

Cumulative and In-combination Effects

- 14.11.8 It is not considered likely that there will be any significant cumulative effects from construction or operational traffic associated with the Proposed Development and other developments located within Nottinghamshire and Lincolnshire area due to the implementation of relevant mitigation measures and management plans within their respective applications.
- 14.11.9 Regarding in-combination effects, given that the residual effects associated with the construction and operational phases of the Proposed Development are predicted to be negligible on an air quality basis. In-combination effects on local receptors caused by the contribution of air pollution from the construction or operational phase of the Proposed Development are expected to be **not significant**.

Conclusion

- 14.11.10 It is concluded that the proposed package of mitigation will ensure that the Proposed Development is acceptable and that there will be no adverse significant effects to air quality.
- 14.11.11 Table 14.7 provides a summary of effects, mitigation and residual effects.

Table 14.7: Summary of Effects, Mitigation and Residual Effects

Receptor	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
Construction								
Existing Human Health Receptors and Ecological Receptors	Effects from Dust Soiling	Temporary, Direct	High	Negligible	Local	Not Significant	Construction Measures set out in Appendix 14.1(C) to be included within the CEMP	Negligible (Not significant)
	Effects from emissions of PM ₁₀ and dust on human health and environment	Temporary, Direct	High	Negligible	Local	Not Significant	Construction Measures set out in Appendix 14.1(C) to be included within the CEMP	Negligible (Not significant)
	Potential increase in concentrations	Temporary, Direct	High	Negligible	Local	Not Significant	Construction Measures set out in	Negligible (Not significant)

Receptor	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
	of NO ₂ , PM ₁₀ and PM _{2.5} as a result of additional construction traffic movements						Appendix 14.1 (C) to be included within the CTMP	
Operation								
Existing Human Health Receptors and Ecological Receptors	Potential increase in concentrations of NO ₂ , PM ₁₀ and PM _{2.5} as a result of additional traffic movements	Neutral, Long-term	High	Negligible	Local	Not Significant	N/A	Negligible (Not significant)
Cumulative and In Combination								
Existing and committed developments	Effects from Dust Soiling	Temporary, Direct	High	Negligible	Local	Not Significant	N/A	Negligible (Not significant)

Receptor	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
	Potential increase in concentrations of NO ₂ , PM ₁₀ and PM _{2.5} as a result of additional construction traffic or NRMM movements	Temporary, Direct	High	Negligible	Local	Not Significant	N/A	Negligible (Not significant)