



# IGC Facility, Unit A, Lydia Becker Way, Oldham

## Air Quality Assessment

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SLR Project No.: 440.v13945.00001

Client Reference No: WA.038717

23 January 2026

Revision: 03

## Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	14 November 2025	PT	MTW	MTW
02	20 November 2025	PT	MTW	MTW
03	22 January 2026	PT	MTW	MTW

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## Executive Summary

An air quality assessment has been undertaken to assess the potential air quality impacts associated with the installation of boilers at the Inspired Global Cuisine Ltd (IGC) facility at Unit A, Lydia Becker Way, Oldham.

There will be a total of two boiler stacks at the IGC Facility. The assessment has therefore been undertaken to consider the potential air quality effects associated with the operation of these two boiler stacks with potential effects considered at a number of existing sensitive human and ecological receptors.

Concentrations of nitrogen dioxide (NO<sub>2</sub>) have been predicted at the closest residential properties to the facility, as well as at relevant statutory designated habitat sites.

The assessment shows that, with the two boiler stacks in operation, pollutant concentrations will be below the relevant air quality objectives at all existing human receptors assessed (this prediction excludes road traffic contributions for the considered pollutants). The overall air quality effects associated with the emissions from the two boiler stacks are not therefore considered to be significant for human receptors.

With regard to existing sensitive ecological receptor points, a robust methodology has been adopted in that conservative critical loads, background levels and deposition velocities have been applied for the assessed designated habitat site. It was also assumed that 100% of NO<sub>x</sub> will convert to NO<sub>2</sub>, presenting a worst case. Even when this wholly robust methodology is applied, annual mean pollutant concentrations of NO<sub>2</sub> can be screened out at the habitat site considered.



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## 1.0 Introduction

### Background

- 1.1 This report details an assessment undertaken to consider the potential significance of emissions associated with two boiler stacks at the Inspired Global Cuisine Limited (IGC) facility at Unit A Lydia Becker Way, Oldham OL9 9AB. The building has approval for B8 use and planning permission has now been granted to increase the flexibility of this use to provide a flexible B2/B8/E(g) use.
- 1.2 The assessment has been undertaken using the AERMOD atmospheric dispersion model. Emissions of oxides of nitrogen (NO<sub>x</sub>), associated with the two boiler stacks have been modelled at a number of representative existing sensitive receptor points. These represent both human receptors (i.e. residential dwellings) and ecological receptor points (i.e. statutory designated habitat sites).
- 1.3 Predicted pollutant concentrations have been assessed against the relevant air quality objectives, and relevant critical levels and critical loads, to determine the risk of exceedance or potential for impact. Based on this, a conclusion has been reached on whether the emissions from the boiler stacks are considered to be significant.

### Site Description

- 1.4 The IGC Facility (the 'site') is located approximately 2.8km to the west of Oldham town centre, off Lydia Becker Way. The site is largely surrounded in all direction by residential uses, however small scale industrial/commercial uses are located immediately to the south and south west, and the Radclyffe Athletics Centre and School are located adjacent to the north east and along Broad Oak Road to the south. The site location is shown on drawing 001.
- 1.5 There is one nationally designated habitat site within 2km and 10km of the site – the Rochdale Canal Site of Special Scientific Interest/Special Area of Conservation. There are also five Local Wildlife Sites (LWS) within 2km of the site.



## 2.0 LEGISLATION AND POLICY CONTEXT

### Relevant Air Quality Legislation and Guidance

2.1 The air quality assessment has been undertaken in accordance with the following legislation and guidance:

- EU Ambient Air Quality Directive 2008/50/EC (i.e. the CAFE Directive);
- The Environment Act 1995, as amended 2021;
- Department of Environment, Food and Rural Affairs, The Air Quality Strategy for England, August 2023
- The Air Quality Standards Regulations 2010;
- Department for Environment, Food and Rural Affairs, Local Air Quality Management Technical Guidance LAQM.TG(22), August 2022;
- Environment Agency, Air Emissions Risk Assessment for Your Environmental Permit, July 2025;
- Environment Agency, Technical Guidance on Detailed Modelling Approach for an Appropriate Assessment for Emissions to Air, March 2014; and
- Conservation Agencies' Guidance on Evaluating Model Impacts Against Critical Loads.

2.2 Further details of these documents are included in Appendix A.

### Assessment Criteria

#### Existing Sensitive Human Receptors

2.3 The relevant air quality objectives used in the assessment of air quality effects at existing sensitive human receptors, are included within Table 1.

Table 1: Air Quality Objectives Relevant to the Assessment <sup>a</sup>			
Pollutant	Objective/Limit Value	Averaging Period	Obligation
Nitrogen Dioxide (NO <sub>2</sub> )	200µg/m <sup>3</sup> , not to be exceeded more than 18 times a year	1-hour mean	All local authorities
	40µg/m <sup>3</sup>	Annual mean	All local authorities

<sup>a</sup> In accordance with the Air Quality Standards Regulations 2010

2.4 Further details of where these objectives apply are detailed in **Appendix A**.

#### Existing Sensitive Ecological Receptor Points

2.5 Modelled airborne pollutant concentrations and deposition rates, at locations within the relevant statutory designated habitat site, have been assessed against critical levels and critical loads respectively.



- 2.6 The relevant critical levels used in the assessment of air quality effects, associated with airborne pollutant concentrations, at existing sensitive ecological receptor points, are included within Table 2.

Table 2: Critical Levels Relevant to the Assessment <sup>a</sup>			
Pollutant	Objective/Limit Value	Averaging Period	Obligation
Nitrogen Dioxide (NO <sub>2</sub> )	75µg/m <sup>3</sup>	24-hour mean	All local authorities
	30µg/m <sup>3</sup>	Annual mean	All local authorities
<sup>a</sup> In accordance with EA guidance			

- 2.7 NO<sub>2</sub> is a nitrogen containing pollutant and its deposition to ground can promote eutrophication and acidification. Both eutrophication and acidification can cause substantial alterations in soil chemistry (including nutrient status) and plant community composition. Critical loads define the maximum amount of an atmospheric pollutant that can be deposited onto soils, waters or vegetation without causing adverse harmful effects in the long term.
- 2.8 Site relevant critical loads for nutrient nitrogen and nitrogen-derived acid deposition, obtained from the Air Pollution Information System (APIS) online resource<sup>1</sup>, have been used in the assessment for the considered habitat site. The lowest value has been used to provide a conservative assessment.
- 2.9 Review of the critical load values for the Rochdale Canal SSSI/SAC from APIS, provides a range of 2-10 kgN/ha/yr. Further guidance as to the appropriate critical load to use is given as below:

*“The critical load for C1.1 and C1.4 is 2-10 kg N ha<sup>-1</sup> yr<sup>-1</sup>. The lower end of the range is intended for boreal and alpine lakes, and the higher end of the range for Atlantic softwaters. Site specific advice should be sought from the conservation agencies as to which part of the range is relevant”.*

- 2.10 Site specific advice has been sought from the SLR ecology team. The ‘Review and revision of empirical critical loads of nitrogen for Europe (110/2022)’ document<sup>2</sup> states that

*“The previously established CL<sub>emp</sub>N for shallow soft-water bodies (most in C1.1, but some elements in C1.2) was based on experimental evidence and was set at 3 to 10 kg N ha<sup>-1</sup> yr<sup>-1</sup> and was considered as reliable (Bobbink et al., 1996, 2003; Bobbink and Hettelingh, 2011). As no new evidence from experimental studies or targeted gradient studies has been published since then on the impacts of N deposition in (shallow) soft-water lakes, the CL<sub>emp</sub>N range for these systems remains unchanged. This has been incorporated into the more general CL<sub>emp</sub>N range for oligotrophic lakes, ponds and pools (C1.1) of 2 to 10 kg N ha<sup>-1</sup> yr<sup>-1</sup> (reliable), with a recommendation that the upper part of the range (5 to 10 kg N ha<sup>-1</sup> yr<sup>-1</sup>) is applied in practice (see also Chapter 5.2.2).”*

<sup>1</sup> [Accessed at: <https://www.apis.ac.uk/src/>]

<sup>2</sup> Available at [https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2022-10-12\\_texte\\_110-2022\\_review\\_revision\\_empirical\\_critical\\_loads.pdf](https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2022-10-12_texte_110-2022_review_revision_empirical_critical_loads.pdf)



- 2.11 Based on the advice from the SLR ecology team, it is considered that the Rochdale Canal could be classed as C1.2 in the enuis system, and therefore would fall within the Atlantic softwater category. This then suggests that a range of 5-10 kgN/ha/yr would be appropriate to use in the assessment.
- 2.12 Further details of these critical loads are provided in Table 3.

Table 3: Conservative Site Relevant Critical Loads Relevant to the Assessment			
Designated Site	Sensitive Feature	Relevant Nitrogen Critical Load (kgN/ha/yr) / Habitat	Nitrogen-Derived Acid Deposition Critical Load (kEq/ha/year)
Rochdale Canal SSSI/SAC	Luronium natans - Floating Water-Plantain	5 – 10	1.46

- 2.13 Environment Agency (EA) guidance<sup>3</sup> states that emissions can be considered not significant, for Ramsar sites/SPAs/SACs and SSSIs, where the following criteria apply:
- The short-term Process Contribution (PC) is less than 10% of the short-term environmental standard for protected conservation areas; and
  - The long-term PC is less than 1% of the long-term environmental standard for protected conservation areas.
- 2.14 For LWS, EA guidance states that emissions can be considered not significant where the following criteria apply:
- The short-term Process Contribution (PC) is less than 100% of the short-term environmental standard for protected conservation areas; and
  - The long-term PC is less than 100% of the long-term environmental standard for protected conservation areas.
- 2.15 Where these requirements aren't met, the Predicted Environmental Concentration (PEC) should be calculated for long-term concentrations only and should be compared against the above criteria. If the long-term PC is greater than 1%, but the PEC is less than 70% of the long-term environmental standard, the emissions are considered not significant.
- 2.16 Should these criteria be exceeded, it does not necessarily follow that there will be a consequent significant ecological effect; rather it indicates the potential for such an effect to occur.
- 2.17 Further discussion of the PC and PEC are provided in section 3 of this report.

<sup>3</sup> Environment Agency, Air emissions risk assessment for your environmental permit, March 2023 [Accessed at: <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>]



## 3.0 ASSESSMENT METHODOLOGY

### Atmospheric Dispersion Modelling

- 3.1 Potential emissions to atmosphere have been modelled using AERMOD (Lakes Environmental). This is a proprietary quantitative atmospheric dispersion model that is based upon the Gaussian theory of plume dispersion.
- 3.2 The model uses all input data, including the characteristics of the release (e.g. rate, temperature, velocity, height, location, etc.), the terrain, meteorological data and the locations of the buildings adjacent to the emission points, to predict the concentration of the substance of interest at a specified point.
- 3.3 The model uses sequential hourly meteorological data, and the locations of the buildings, to predict the concentration of each substance at each point for each hour over the course of a year. This allows the long-term mean and short-term peak ground level concentrations to be estimated over the modelled area as required.
- 3.4 The dispersion modelling has been carried out in accordance with the EA guidance on carrying out risk assessments for environmental permits.

### Prediction of Pollutant Concentrations

- 3.5 The assessment has considered the following pollutants from two sources in total (e.g. the two boiler stacks):
  - NO<sub>2</sub> concentrations (in micrograms per cubic metre, µg/m<sup>3</sup>).
- 3.6 The AERMOD model produces computed concentrations which are known as the Process Contribution (PC). This represents the emissions from the process being modelled.
- 3.7 For human receptors, the PC is added to the relevant ambient background concentration to provide a total Predicted Environmental Concentration (PEC) at the existing receptors assessed. The PC and PEC values are then compared with the relevant air quality objectives (as detailed in Table 1) and the likelihood of exceedance is determined.
- 3.8 For ecological receptor points, in the first instance, the PC is compared to the relevant critical levels and critical loads (as detailed in Tables 2 and 3). Where exceedance of the relevant screening criteria is predicted, the PC values can be added to the relevant ambient background concentrations and/or deposition rates for further comparison.
- 3.9 Deposition rates of NO<sub>2</sub> have been calculated using EA recommended deposition velocities. Deposition of nitrogen per hectare per year (kg N/ha/year) and acid per hectare per year (kEq/ha/year) have been calculated from the modelled NO<sub>2</sub> deposition rates.
- 3.10 Further details of the modelling methodology are provided in Appendix B.

### Existing Sensitive Human Receptors

- 3.11 A number of existing sensitive human receptors (referred to as ESR 1 to ESR 16) have been selected for consideration in the air quality assessment. These have been chosen based on their sensitivity and their proximity to the boiler stacks.
- 3.12 Details of these receptors are provided in Table 4, and their locations are shown on drawing 001.



**Table 4: Existing Sensitive Human Receptors Considered in Air Quality Assessment**

Receptor	Address	Location		Bearing from Site	Approx. Distance to Stacks (m)
		Easting	Northing		
ESR 1	Mill Fold Gardens	389827.9	405058.8	South east	295
ESR 2	Gradient Close	389845	405151.5	East south east	266
ESR 3	Radclyffe School	389852.1	405390	North east	295
ESR 4	Broomes Park	389923.4	405502	North east	414
ESR 5	Hunt Lane	390114.5	405374.8	North east	529
ESR 6		390138.2	405287.5	East north east	539
ESR 7	Ferney Field Road	389642.1	405454.9	North	212
ESR 8		389520.3	405346	North west	125
ESR 9		389768.7	405522.4	North	322
ESR 10	Cavalier Square	389524.8	404998	South	260
ESR 11	Lydia Becker Way	389449.6	405104.7	South south west	205
ESR 12	Shayfield Avenue	389400.3	405459	North west	290
ESR 13	Derwent Drive	390168.1	405008.8	South east	615
ESR 14	North Dean Park	390319.9	405328	East north east	729
ESR 15	Lowcroft Crescent	389664.4	405597.5	North	355
ESR 16	St Herberts Primary School	390289.6	405467	North east	724

3.13 In addition to selected existing sensitive receptors, a uniform Cartesian grid has also been modelled. The parameters of the modelled Cartesian grid are included in Table 5.



Table 5: Uniform Cartesian Grid Parameters		
Parameter	X	Y
South West Grid Coordinates	388863.18	404416.41
Number of Points	90	90
Spacing (m)	20	20
Length (m)	1,780	1,780
Total Number of Grid Receptors	8,100	

## Existing Sensitive Ecological Receptor Points

- 3.14 The EA guidance on carrying out risk assessments for environmental permits advises that the following screening distances apply to statutory designated habitat sites (referred to in the guidance as ‘protected conservation areas’):
- 10km from a site: Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites; and
  - 2km from a site: Sites of Special Scientific Interest (SSSIs) and local nature sites (Ancient Woodland, Local Wildlife Sites (LWSs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs)).
- 3.15 A review of the MAGIC online resource<sup>4</sup> indicates that there are six relevant sites located within 2km and 10km of the IGC Facility:
- Rochdale Canal Site of Special Scientific Interest (SSSI)/Special Area of Conservation (SAC)
  - Hunt Lane LWS
  - Rochdale Canal - Lock at Scowcroft Farm to Stott’s Lane
  - River Irk Marsh LWS
  - Rochdale Canal – Scowcroft to Warland LWS
  - Scowcroft Reservoir LWS
- 3.15.1 A number of ecological receptor points (referred to as ECO 1 to ECO 18) have been considered in the air quality assessment. Details of these receptors are provided in Table 6, and their locations are shown on drawing 001.

<sup>4</sup> [Accessed at: <https://magic.defra.gov.uk/>]



**Table 6: Existing Sensitive Ecological Receptor Points Considered in Air Quality Assessment**

Receptor	Designated Habitat Site	Location	
		X	Y
ECO 1	Rochdale Canal SSSI/SAC and Rochdale Canal – Lock at Scowcroft Farm to Stott’s Lane LWS	388944.8	405709.4
ECO 2		388932.3	405628.2
ECO 3		388921.9	405502.2
ECO 4		388884.4	405323.7
ECO 5		388882.9	405153.4
ECO 6		388928.9	405043.9
ECO 7		388922.8	404890.3
ECO 8		388921.5	404796.5
ECO 9		388912	405900.1
ECO 10		389073.1	406195.2
ECO 11	Hunt Lane LWS	389932	405362.5
ECO 12		389997.1	405340.4
ECO 13		390049.9	405357.1
ECO 14		390084.4	405403.2
ECO 15	River Irk March LWS	389121.6	406254.4
ECO 16		389054	406252.3
ECO 17	Scowcroft Reservoir LWS	388198	406569
ECO 18	Rochdale Canal – Scowcroft to Warland LWS	388698	406591.9



## Limitations and Uncertainties

- 3.16 The atmospheric dispersion model has been run separately for the most recent five years of meteorological data, with the highest results presented.
- 3.17 The assessment has assumed that the two boiler stacks will be operational for 24 hours a day Monday to Friday, for 8 hours on a Saturday and for 6 hours on a Sunday. In reality the boilers are likely to be used less frequently than this.
- 3.18 The assessment does not take into consideration road traffic sources for the assessed pollutants. Therefore, the PECs have been calculated using background levels and the predicted PCs only.



## 4.0 BASELINE SITUATION

### Oldham Council Local Air Quality Management

- 4.1 The IGC facility is located within the administrative area of Oldham Council (OC), which is responsible for the management of local air quality.
- 4.2 OC is part of the Greater Manchester Combined Authority (GMCA) which oversees the management of air quality across the entirety of Greater Manchester.
- 4.3 GMCA currently has one declared Air Quality Management Area (AQMA), the Greater Manchester AQMA, which lies in parts of all the 10 districts of Greater Manchester. It should be noted this AQMA is not region-wide and predominantly covers busy main roads within the GMCA including arterial routes, district centres and airport.
- 4.4 There are sections of the GMCA AQMA located along the A663 Broadway to the west, the closest section being approximately 410m from the IGC facility building. There is also a small section located on the A669 Middleton Road, approximately 415m to the north.
- 4.5 Air quality monitoring is currently undertaken by OC within a section of the GCMA AQMA along the A663 Broadway (Ref: OL2). This diffusion tube recorded annual mean concentrations of 25.9 µg/m<sup>3</sup> during 2024, which is the latest year for which monitoring data is available.

### Background Air Pollutant Concentrations at Existing Sensitive Human Receptors

- 4.6 The air quality assessment needs to take into account background concentrations upon which the predicted pollutant concentrations from the boiler stacks are superimposed.
- 4.7 There are no representative background pollutant monitoring locations in the vicinity of the IGC Facility. Background NO<sub>2</sub> concentrations for use in the air quality assessment have therefore been obtained from default concentration maps available on the 2021-based Department for Environment, Food and Rural Affairs (Defra) Local Air Quality Management webpages<sup>5</sup>.
- 4.8 The background pollutant concentrations used in the air quality assessment are detailed in Table 7.

**Table 7: Background Air Pollutant Concentrations Used in the Air Quality Assessment**

Receptor	2025 Backgrounds for NO <sub>2</sub> (µg/m <sup>3</sup> ) <sup>a</sup>
ESR 1-4, 7-9, 11-12 & 15	12.78
ESR 5-6, 13-14 & 16	16.48
ESR 10	14.71

<sup>a</sup>Obtained from the 2021-based maps on the Defra Local Air Quality Management webpages

<sup>5</sup> Department for Environment, Food and Rural Affairs Local Air Quality Management webpages [Accessed at: <http://uk-air.defra.gov.uk/data/laqm-background-home>]



## Background Air Pollutant Concentrations and Deposition Rates at Existing Sensitive Ecological Receptor Points

4.9 Current pollutant concentrations and deposition rates at the considered designated habitat sites have been taken from the APIS resource and are shown in Table 8.

Table 8: Current Air Pollutant Conditions at the Considered Designated Habitat Sites			
Designated Habitat Site	Nitrogen Deposition (kg N/ha/yr)*	Acid Deposition, (kEq/ha/yr)*	NOx Concentration (µg/m <sup>3</sup> )**
Rochdale Canal SSSI/SAC	17.3*	1.5*	19.58
Rochdale Canal – Lock at Scowcroft Farm to Stott’s Lane LWS	17.3*	1.5*	19.58
Hunt Lane LWS	17.36	1.47	26.16
River Irk Marsh LWS	17.36	1.46	19.04
Scowcroft Reservoir LWS	17.22	1.44	20.4
Rochdale Canal – Scowcroft to Warland LWS	17.3*	1.5*	19.58

*\*Highest deposition rates taken from lowest ‘moorland’ value for section of SSSI/SAC modelled in the assessment, as shown on APIS website*

*\*\*Average values taken from APIS website*



## 5.0 IMPACT ASSESSMENT

### Assessment of Pollutant Concentrations

5.1 NO<sub>x</sub> concentrations, as a result of the operation of the boiler stacks, have been modelled at a number of existing human and ecological sensitive receptors/receptor points, where applicable.

#### NO<sub>2</sub> Concentrations

- 5.2 The EA guidance provides recommendations regarding the conversion rates for NO<sub>x</sub> to NO<sub>2</sub>:
- For short term PCs and PECs, it should be assumed that only 50% of NO<sub>x</sub> concentrations convert to NO<sub>2</sub> concentrations in the environment; and
  - For long term PCs and PECs, it should be assumed that 100% of NO<sub>x</sub> concentrations convert to NO<sub>2</sub> concentrations.
- 5.3 The predicted NO<sub>x</sub> concentrations have therefore been converted to NO<sub>2</sub> concentrations in line with these recommendations.
- 5.4 The background concentrations of NO<sub>2</sub>, detailed in Table 7, have been used to determine the PEC concentrations at each human receptor, for each year of meteorological data. The PC and PEC concentrations as a percentage of the relevant air quality objective have then been determined for each receptor, for each year of meteorological data.
- 5.5 The highest concentrations/percentages, for the considered existing sensitive human receptors, are summarised in Table 9.

**Table 9: Maximum Modelled NO<sub>2</sub> Concentrations for Existing Sensitive Human Receptors**

Pollutant	AQO	ESR	PC	PEC	PC/AQO	PEC/AQO
NO <sub>2</sub> Annual Mean	40µg/m <sup>3</sup>	ESR 7	2.38µg/m <sup>3</sup>	15.16µg/m <sup>3</sup>	5.95%	37.90%
NO <sub>2</sub> 1-hour Mean (99.8 <sup>th</sup> Percentile)	200µg/m <sup>3</sup> , not to be exceeded more than 18 times a year	ESR 2 & 6	14.85µg/m <sup>3</sup> (ESR 2)	43.80µg/m <sup>3</sup> (ESR 6)	7.43%	21.90%

### Summary

- 5.6 The results confirm that the maximum modelled PCs and PECs do not exceed the relevant air quality objectives for the existing residential receptors considered in the assessment (i.e. ESR 1 to ESR 16). This prediction excludes road traffic contributions for the considered pollutants. However, local monitoring data obtained from the nearby OC monitoring location (ref: OL2) shows that roadside NO<sub>2</sub> concentrations are well below the air quality objective (25.9 µg/m<sup>3</sup> during 2024). Considering the highest process contribution predicted above represents a relatively small increase in NO<sub>2</sub> concentrations, the air quality objective would not be exceeded if the PC was added to this roadside NO<sub>2</sub> concentration.
- 5.7 On this basis, it is therefore considered that the boiler stack heights are sufficient to ensure the adequate dispersion of NO<sub>2</sub>, and therefore further mitigation will not be required.



- 5.8 The modelled NO<sub>x</sub> concentrations for the considered receptors, along with the Cartesian grid points experiencing the maximum modelled concentrations, are detailed in Appendix C.

### Existing Sensitive Ecological Receptor Points

- 5.9 In line with the EA guidance, the short-term and long-term PCs have been compared against the relevant critical levels. The PC values, as a percentage of the relevant critical level, have been determined for each receptor point considered, for each year of meteorological data.

### NO<sub>2</sub> Airborne Concentrations

- 5.10 Short-term and long-term PCs have been predicted at the existing sensitive ecological receptor points. The highest concentrations/percentages are summarised in Table 10.

Table 10: Maximum Modelled NO <sub>2</sub> Concentrations for Existing Sensitive Ecological Receptor Points				
Pollutant	Critical Level	Habitat Site	PC	PC as % of Critical Level
NO <sub>2</sub> Annual Mean	30µg/m <sup>3</sup>	Rochdale Canal SSSI/SAC	0.27µg/m <sup>3</sup>	0.91%
		Rochdale Canal – Lock at Scowcroft Farm to Stott's Lane LWS	0.27µg/m <sup>3</sup>	0.91%
		Hunt Lane LWS	0.74µg/m <sup>3</sup>	2.48%
		River Irk Marsh LWS	0.23µg/m <sup>3</sup>	0.77%
		Scowcroft Reservoir LWS	0.05µg/m <sup>3</sup>	0.17%
		Rochdale Canal – Scowcroft to Warland LWS	0.12µg/m <sup>3</sup>	0.39%
NO <sub>2</sub> 24-hour Mean <sup>a</sup>	75µg/m <sup>3</sup>	Rochdale Canal SSSI/SAC	4.06µg/m <sup>3</sup>	5.41%
		Rochdale Canal – Lock at Scowcroft Farm to Stott's Lane LWS	4.06µg/m <sup>3</sup>	5.41%
		Hunt Lane LWS	5.54µg/m <sup>3</sup>	7.39%
		River Irk Marsh LWS	2.81µg/m <sup>3</sup>	3.75%
		Scowcroft Reservoir LWS	0.74µg/m <sup>3</sup>	0.99%
		Rochdale Canal – Scowcroft to Warland LWS	1.36µg/m <sup>3</sup>	1.81%

<sup>a</sup> Worst-case conversion from NO<sub>x</sub> to NO<sub>2</sub> applied (100%) to provide a conservative approach



- 5.11 The results confirm that the maximum modelled PCs do not exceed 10% of the short-term critical level or 1% of the long term critical level for any of the modelled receptors within the Rochdale Canal SSSI/SAC.
- 5.12 The maximum modelled PCs do not exceed 100% of the short-term critical level or 100% of the long term critical level for any of the modelled receptors within the five LWS considered.
- 5.13 It is therefore not necessary to compare the PECs with the long-term critical levels, as NO<sub>2</sub> emissions are considered to be insignificant at the habitat sites considered (in accordance with EA guidance).

### Nutrient Nitrogen and Acid Deposition

- 5.14 The maximum modelled nutrient nitrogen and acid deposition rates, due to emissions from the two boiler stacks, are detailed in Table 11.

Table 11: Maximum Modelled Deposition Rates for Nutrient Nitrogen and Acid Deposition at Existing Sensitive Ecological Receptor Points		
Designated Habitat Site	Highest Modelled Nutrient Nitrogen Deposition Rate PC (kgN/ha/yr)	Highest Modelled Acid Deposition Rate PC (kEq/ha/yr)
Rochdale Canal SSSI/SAC	0.039	0.003
Rochdale Canal – Lock at Scowcroft Farm to Stott’s Lane LWS	0.039	0.003
Hunt Lane LWS	0.107	0.008
River Irk Marsh LWS	0.033	0.002
Scowcroft Reservoir LWS	0.007	0.001
Rochdale Canal – Scowcroft to Warland LWS	0.017	0.001

- 5.15 The process contribution to nutrient nitrogen deposition has been assessed as a percentage of the critical loads. Nitrogen-derived acid deposition has been assessed in accordance with guidance published by APIS<sup>6</sup>. The guidance provided with this tool enables a calculation to be made of the contribution to acid deposition as a percentage of the relevant critical load value. This guidance advises:

*“Where PEC is greater than CL<sub>min</sub>N (the majority of cases), the combined inputs of sulphur and nitrogen need to be considered. In such cases, the total acidity input should be calculated as a proportion of the CL<sub>max</sub>N.*

*Where PEC N Deposition > CL<sub>min</sub>N.*

*PC as %CL function = ((PC of S+N deposition)/CL<sub>max</sub>N)\*100”*

<sup>6</sup> Available on the APIS website (<http://www.apis.ac.uk/clf-guidancel>)



- 5.16 For this assessment, the PEC was greater than CLminN in every case and consequently the above calculation was used to calculate the PC as a percentage of the critical load function.
- 5.17 The results are presented in Table 12.

<b>Table 12: Assessment of Maximum Modelled Deposition Rates, for Nutrient Nitrogen and Acid Deposition, Against Critical Loads</b>				
<b>Designated Habitat Site</b>	<b>Nutrient Nitrogen Deposition</b>		<b>Acid Deposition</b>	
	<b>Critical Load (kgN/ha/yr)</b>	<b>Highest Modelled PC as % of Critical Load</b>	<b>Critical Load – MinCLMaxN (kEq/ha/yr)</b>	<b>Highest Modelled PC as % of Critical Load</b>
Rochdale Canal SSSI/SAC	5	0.78%	1.46	0.19%
Rochdale Canal – Lock at Scowcroft Farm to Stott's Lane LWS	5	0.78%	1.46	0.19%
Hunt Lane LWS	5	2.14%	2.048	0.37%
River Irk Marsh LWS	5	0.66%	0.673	0.35%
Scowcroft Reservoir LWS	5	0.14%	0.635	0.04%
Rochdale Canal – Scowcroft to Warland LWS	5	0.34%	1.46	0.08%

- 5.18 The results confirm that the maximum modelled PCs, for both nutrient nitrogen and acid deposition, do not exceed 1% of the long-term critical loads, for the protection of vegetation, for any of the modelled receptor points within the Rochdale Canal SSSI/SAC.
- 5.19 For the LWS considered, the results confirm that the maximum modelled PCs, for both nutrient nitrogen and acid deposition, do not exceed 100% of the long-term critical loads, for the protection of vegetation, for any of the modelled receptor points within all five LWS considered.
- 5.20 It is not therefore necessary to proceed to a comparison of PECs against the critical loads, as NO<sub>2</sub> emissions are considered to be insignificant at the habitat sites considered (in accordance with EA guidance).

### **Summary**

- 5.21 A robust methodology has been adopted for the purpose of the ecological assessment, in that conservative critical loads, background levels and deposition velocities have been applied for the assessed designated habitat sites.
- 5.22 Even under such a robust methodology, significant pollutant contributions can be screened out at the Rochdale Canal SSSI/SAC and all five LWS considered.



## 6.0 CONCLUSIONS

- 7.2 Atmospheric dispersion modelling has been undertaken using AERMOD to consider emissions associated with two boiler stacks at the Inspired Global Cuisine Ltd (IGC) facility at Unit A, Lydia Becker Way, Oldham
- 7.3 The potential air quality effects have been considered at a number of existing sensitive human receptors and ecological receptor points. With regard to existing sensitive human receptors, the maximum modelled PC and PECs have been compared against the relevant air quality objectives, to determine the risk of exceedance. The results confirm there will be no exceedances of the relevant air quality objectives for the receptors considered.
- 7.4 With regard to existing sensitive ecological receptor points, a robust methodology has been adopted in that conservative critical loads, background levels and deposition velocities have been applied for all of the assessed designated habitat sites. It was also assumed that 100% of NO<sub>x</sub> will convert to NO<sub>2</sub>, presenting a worst case. Even when this wholly robust methodology is applied, significant pollutant contributions can be screened out at all of the designated habitat sites considered.





# **Appendix A    Air Quality Legislation and Guidance**

**IGC Facility, Unit A, Lydia Becker Way, Oldham**

**Air Quality Assessment**

**Inspired Global Cuisine Ltd**

SLR Project No.: 440.v13945.00001

23 January 2026

## A.1 National Air Quality Strategy

The Environment Act 1995 requires the UK government to prepare a national Air Quality Strategy. The first UK strategy was published in March 1997, setting out policies for the management of ambient air quality. This was subsequently updated in 2007<sup>7</sup>.

The 2007 strategy establishes the framework for air quality management in England, Scotland, Wales and Northern Ireland. Air quality standards and objectives are set out for eight pollutants which may potentially occur at levels that give cause for concern. The strategy also provides details of the role that local authorities are required to take in working towards improvements in air quality, known as the Local Air Quality Management (LAQM) regime.

Defra published an updated air quality strategy in April 2023, and updated in August 2023<sup>8</sup>. The revised strategy supersedes the 2007 strategy in England only and provides a framework to enable local authorities to make the best use of their powers and make improvements for their communities. It also includes guidance on the new fine particulate matter targets for England.

## A.2 Air Quality Standards and Objectives

Air quality standards and objectives are set out in the strategy for the following pollutants: nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), carbon monoxide (CO), lead (Pb), fine particulate matter (PM<sub>10</sub>), benzene (C<sub>6</sub>H<sub>6</sub>), 1, 3-butadiene (C<sub>4</sub>H<sub>6</sub>) and ozone (O<sub>3</sub>).

Objectives for each pollutant, except O<sub>3</sub>, were first given statutory status in the Air Quality Regulations 2000<sup>9</sup> and Air Quality (Amendment) Regulations 2002<sup>10</sup>. These objectives are defined in the strategy as:

*“the maximum ambient concentration not to be exceeded, either without exception or with a permitted number of exceedances, within a specified timescale.”*

EU limit values, set out within the Ambient Air Quality Directive 2008/50/EC<sup>11</sup> (i.e. the CAFE Directive), were transposed into UK legislation as The Air Quality Standards Regulations 2010. These are mostly the same as the air quality objectives in terms of concentrations; however, there are differences in determining how compliance is achieved. Although the UK is no longer part of the EU, no changes have yet been made to the objectives and limit values used in the management and assessment of air quality.

Whilst there is no specific objective for PM<sub>2.5</sub> in England and Wales, a limit value of 20µg/m<sup>3</sup> is referred to in the regulations, which has been adopted for use in this assessment (as recommended by the LAQM Helpdesk). An objective has been set for PM<sub>2.5</sub> in Scotland since early 2016. The Environment Act 2021 sets out a requirement to establish a target objective for PM<sub>2.5</sub>, and this has now been set through the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023. Annual mean concentrations of PM<sub>2.5</sub> must now meet a target of 10 µg/m<sup>3</sup> across England by 2040.

Examples of where these objectives and limit values apply are detailed in the Defra LAQM

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7 Department of Environment, Food and Rural Affairs, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. July 2007

8 Department of Environment, Food and Rural Affairs, Air quality strategy: framework for local authority delivery, August 2023

9 The Air Quality Regulations 2000. SI No 928

10 The Air Quality (Amendment) Regulations 2002

11 Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe



Technical Guidance document LAQM.TG(22)<sup>12</sup> and are included in Table A1.

<b>Table A1: Examples of Where the Air Quality Objectives Should Apply</b>		
<b>Averaging Period</b>	<b>Objectives Should Apply at:</b>	<b>Objectives Should Generally Not Apply at:</b>
Annual mean	All locations where members of the public might be regularly exposed. Building façades of residential properties, schools, hospitals, care homes, etc.	Building facades of offices or other places of work where members of the public do not have regular access. Hotels, unless people live there as their permanent residence. Gardens of residential properties. Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term
24-hour mean and 8-hour mean	All locations where the annual mean objectives would apply, together with hotels. Gardens of residential properties <sup>a</sup>	Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term
1-hour mean	All locations where the annual mean and 24 and 8-hour objectives apply. Kerbside sites (e.g. pavements of busy shopping streets). Those parts of car parks and railway stations etc. which are not fully enclosed, where members of the public might reasonably be expected to spend one hour or more. Any outdoor locations to which the public might reasonably be expected to spend one hour or longer	Kerbside sites where public would not be expected to have regular access
15-minute mean	All locations where members of the public might reasonably be exposed for a period of 15 minutes or longer	
<p><i><sup>a</sup> Such locations should represent parts of the garden where relevant public exposure is likely, for example where there is seating or play areas. It is unlikely that relevant public exposure to pollutants would occur at the extremities of the garden boundary, or in front gardens, although local judgement should always be applied</i></p>		

<sup>12</sup> Department for Environment, Food and Rural Affairs, Local Air Quality Management Technical Guidance LAQM.TG(22), August 2022



### A.3 Local Air Quality Management

LAQM legislation in the Environment Act 1995 requires local authorities to conduct the periodic review and assessments of air quality. These aim to identify all those areas where the objectives are being, or are likely to be, exceeded. Where exceedances are likely to occur, local authorities are required to declare an Air Quality Management Area (AQMA).

LAQM.TG(22) presents a streamlined approach for LAQM in England and Scotland; however, Northern Ireland is still considering changes to LAQM and therefore works according to the previous regimes.

Local authorities in England are required to produce Annual Status Reports (ASRs), and in Scotland and Wales, Annual Progress Reports (APRs). These replace all other reports which previously had to be submitted including Updating and Screening Assessments, Progress Reports and Detailed Assessments (which would be produced to assist with an AQMA declaration).

Local authorities now have the option of a fast-track AQMA declaration option. This allows more expert judgement to be used and removes the need for a Detailed Assessment where a local authority is confident of the outcome. Detailed Assessments should however still be used if there is any doubt.

As part of the UK Government's requirement to improve air quality, selected local authorities in England are also currently investigating the feasibility of setting up Clean Air Zones (CAZs). These are areas where targeted action and co-ordinated resources aim to improve air quality within an urban setting, in order to achieve compliance with the EU limit values within the shortest possible time.

The first CAZs were implemented in Bath in March 2021, and in Birmingham in June 2021. Since then CAZ's have also been declared in Bradford, Bristol, Portsmouth, Sheffield and Tyneside (Newcastle and Gateshead). In addition, the London Ultra Low Emission Zone (ULEZ) has now been expanded to incorporate all London Boroughs.

### A.4 National Planning Policy Framework

The National Planning Policy Framework (NPPF)<sup>13</sup>, introduced in March 2012 and most recently updated in December 2024, with a minor text update in February 2025, requires that:

*“Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of AQMAs and CAZs, and the cumulative impacts from individual sites in local areas.*

*Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications.*

*Planning decisions should ensure that any new development in AQMAs and CAZs is consistent with the local air quality action plan.”*

### A.5 Planning Practice Guidance

The Planning Practice Guidance (PPG)<sup>14</sup>, updated in November 2019, states that whether or

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<sup>13</sup> Ministry of Housing, Communities and Local Government, National Planning Policy Framework, December 2024

<sup>14</sup> Department for Communities and Local Government. Planning Practice Guidance: Air Quality, November 2019



not air quality is relevant to a planning decision will depend on the proposed development and its location. Concerns could arise if the development is likely to generate air quality impacts in an area where air quality is known to be poor. They could also arise where the development is likely to adversely impact upon the implementation of air quality strategies and action plans and/or, in particular, lead to a breach of EU legislation (including that applicable to wildlife).

Where a proposed development is anticipated to give rise to concerns about air quality, an appropriate assessment needs to be carried out. Where the assessment concludes that the proposed development (including mitigation) will not lead to an unacceptable risk from air pollution, prevent sustained compliance with national objectives or fail to comply with the requirements of the Habitats Regulations, then the local authority should proceed to decision with appropriate planning conditions and/or obligations.

## **A.6 Institute of Air Quality Management – A Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites**

Guidance has been prepared by the IAQM with relation to the assessment of air quality impacts on designated nature conservation sites<sup>15</sup>. For the assessment of point sources, such as stacks associated with industrial processes, this makes reference to the Environment Agency (EA) guidance on carrying out a risk assessment as part of an Environmental Permit application (including the screening distances for habitat sites and the criteria for screening out significant effects).

## **A.7 Environment Agency Guidance on Air Emissions Risk Assessments**

The Environment Agency (EA) has produced guidance to support the completion of an air emissions risk assessment as part of Environmental Permit applications<sup>16</sup>. This sets out steps to be followed when carrying out a risk assessment, including defining when detailed atmospheric dispersion modelling is required as part of an Environmental Permit application. The document also sets out environmental benchmarks for a range of pollutants and the required contents of air dispersion modelling reports.

## **A.8 AQTAG06 – Technical Guidance on Detailed Modelling Approach for an Appropriate Assessment for Emissions to Air**

Guidance has been produced<sup>17</sup> to provide an overview of how a quantitative assessment

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<sup>15</sup> Institute of Air Quality Management, A Guide to the Assessment of Air Quality Impacts at Designated Nature Conservation Sites v1.1, May 2020

<sup>16</sup> Environment Agency, Air emissions risk assessment for your environmental permit, January 2025 [Accessed at: <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>]

<sup>17</sup> Technical guidance on detailed modelling approach for an appropriate assessment for emissions to air, AQTAG06, March 2014



(Stage 3 appropriate assessment) should be carried out, using short range modelling to consider emissions to air arising from an Environmental Permitting Regulations (EPR) process, to fulfil the requirements of the Habitats Regulations.

The guidance provides details of the different inputs required for a dispersion modelling exercise. In addition, it sets out recommended deposition velocities for both grassland and forest habitats, which are used in an assessment of nutrient nitrogen and acid deposition.

## A.9 Guidance on Evaluating Model Impacts Against Critical Loads

A method for calculating exceedance of the acidity critical load function, and the contribution from a source to the critical load function, is provided on the Air Pollution Information System (APIS) website<sup>18</sup>.

The critical load function, which was developed under the UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP), defines combinations of sulphur and nitrogen deposition, and so allows the combined inputs of sulphur and nitrogen deposition to be considered. The function is a three-node line on a graph representing the acidity critical load, with combinations above this line exceeding the critical load. All areas below or on the line represent an “envelope of protection” where critical loads are not exceeded. An example graph is shown in Figure 6.1/1 below.

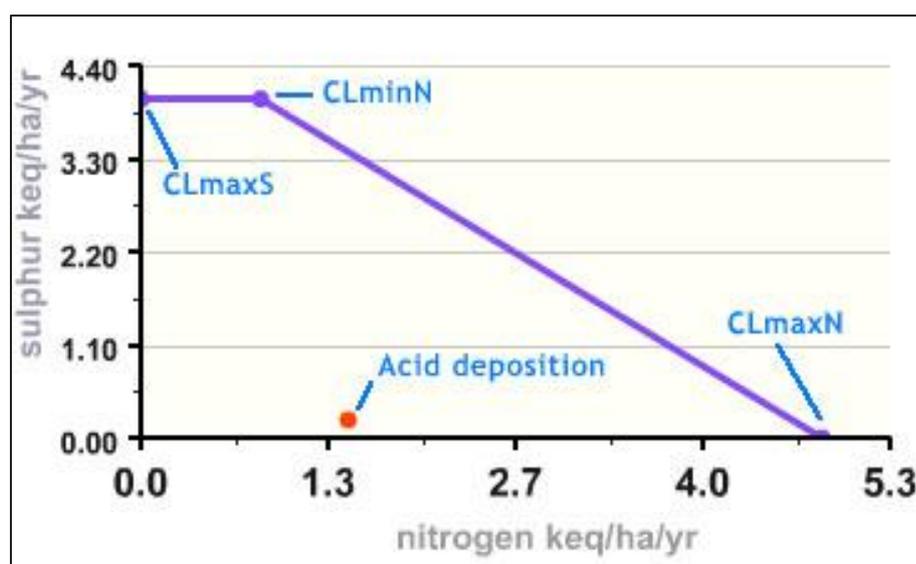


Figure 6.1/1: Example critical load function graph, reproduced from the APIS website

The guidance enables a calculation to be made of the contribution to acid deposition as a percentage of the relevant critical load value, and advises:

*“Where PEC is greater than CLminN (the majority of cases), the combined inputs of sulphur*

<sup>18</sup> [Accessed at: <http://www.apis.ac.uk/clf-guidance>]



*and nitrogen need to be considered. In such cases, the total acidity input should be calculated as a proportion of the CLmaxN.*

*Where PEC N Deposition > CLminN*

*PC as %CL function = ((PC of S+N deposition)/CLmaxN)\*100".*





# **Appendix B    Methodology for Operational Phase Assessment**

**IGC Facility, Unit A, Lydia Becker Way, Oldham**

**Air Quality Assessment**

**Inspired Global Cuisine Ltd**

SLR Project No.: 440.v13945.00001

23 January 2026

## **B.1 Atmospheric Dispersion Modelling**

The atmospheric dispersion model AERMOD (Lakes Environmental) has been used to assess the potential air quality impacts associated with the operation of the boiler stacks. This dispersion model is widely used and accepted for the purpose of undertaking assessments to support both planning and Environmental Permit applications.

## **B.2 Meteorological Data**

The meteorological data used in the air quality modelling has been obtained from ADM Limited and is from the Manchester recording station, covering the period between 1st January 2020 and 31st December 2025.

The IGC Facility is located at an altitude of approximately 112m AOD. The Manchester Airport recording station is located approximately 22.8km to the south, at an altitude of 78.3m AOD, and is therefore considered to be most representative of the conditions at the facility.

The 2020 to 2024 wind roses for the Manchester Airport meteorological recording station are shown in Figure B1, overleaf. Each year has been run separately in the model.

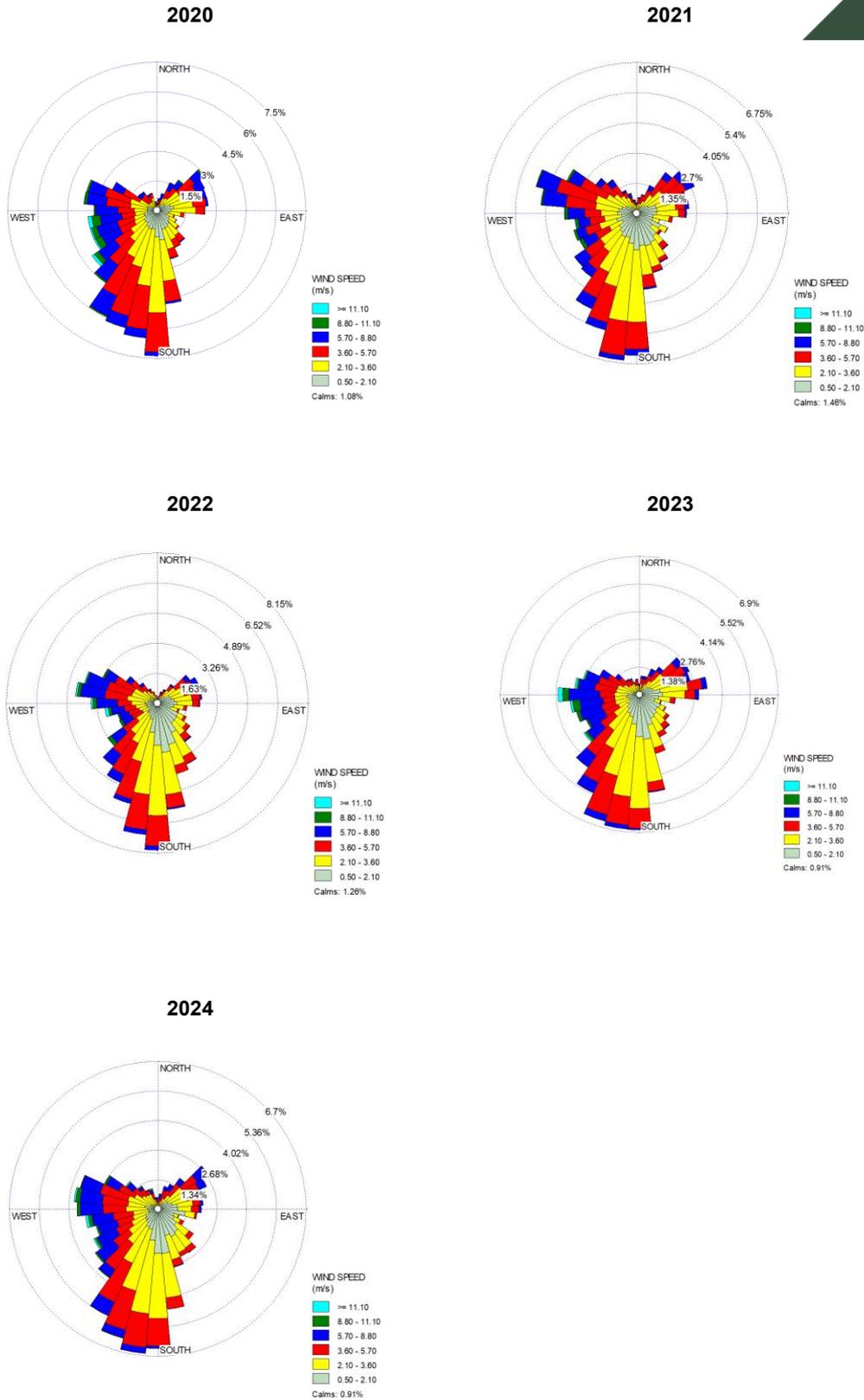


Figure B1: 2020 to 2024 Wind Roses for Manchester Meteorological Recording Station

### B.3 Surface Characteristics

The predominant characteristics of land use in an area provides a measure of the vertical mixing and dilution that takes place in the atmosphere due to factors such as surface roughness and albedo.

The meteorological data has been processed using AERMET, the supporting meteorological pre-processing software (Lakes Environmental, Version 13.0), to enable the surface characteristics to be set in the model.

The values set within the model are included in Table B1.

Table B1: Surface Characteristics Included in Model	
Setting	Urban
Albedo	0.2075
Bowen ratio	1.625
Surface roughness	1m

Buildings can also have a significant influence on the behaviour of the local airflow and 'downwash' can occur, where an emission plume can be drawn down in the vicinity of buildings. There are a number of existing buildings near to the sources of the emissions, as well as the IGC Facility building, and therefore building effects have been included within the model.

Further details of the buildings included in the model are provided later in this appendix.

### B.4 Terrain

To consider the impact of terrain surrounding the IGC Facility, on the dispersion of pollutants, OS Terrain 5 data has been used in the model (in x.y.z format). This has been processed using the in-built AERMAP terrain processor.

### B.5 Emission Parameters

Information regarding the boiler stacks has been provided by Inspired Global Cuisine Ltd. The parameters included in the model are shown in Table B2

Table B2: Model Parameters for Sources Included in Model				
Parameter	Input in Model			
	Boiler Stack 1		Boiler Stack 2	
Flue location (X,Y)	389583.58	405260.93	389584.32	405260.16
Ref in Model	B1		B2	
Base elevation	112m		112m	
Exhaust height	18		18	
Exhaust diameter	0.8		0.8	
Exhaust gas flow at exit (Am <sup>3</sup> /hr)	16344		16344	
Exhaust gas flow at exit (Am <sup>3</sup> /s)	4.540		4.540	
Exhaust efflux velocity (m/s)	9.03		9.03	
Exhaust gas exit temp. (°C)	258		258	

The locations of the exhausts in the model are shown in Figure B2.



Figure B2: Location of Boiler Stacks in Model

The emission concentrations for each substance, as well as the calculated emission rates, are shown in Table B3.

Table B3: Emission rates from the Boiler Stacks		
Emitted Substance	Input in Model	
	VIR 201	VIR 203
Emission Concentration (mg/Nm <sup>3</sup> )		
NO <sub>x</sub> <sup>a</sup>	100	100
Emission Rate (g/s)		
NO <sub>x</sub>	0.2083	0.2083

<sup>a</sup> Provided by manufacturer of the boilers

## B.6 Treatment of Buildings

There are a number of existing buildings located within, and near to, the IGC Facility. The buildings included within the model are detailed in Table B4, and their locations are shown in Figure B3.

Table B4: Buildings Included in Model						
Building Number	Building Name in Model	Building Description	Base Elevation (m)	Height of Building (m)	Grid Reference of SW Corner/ Centre of Circle	
					X	Y
1	BLD_1	IGC Facility Building	112	22	389750	405163
2	BLD_2	Radclyffe athletics centre	115.59	12	389861	405332
3	BLD_3	Radclyffe School	116.49	19	389856	405455

The locations of the buildings are shown in Figure B3, overleaf.

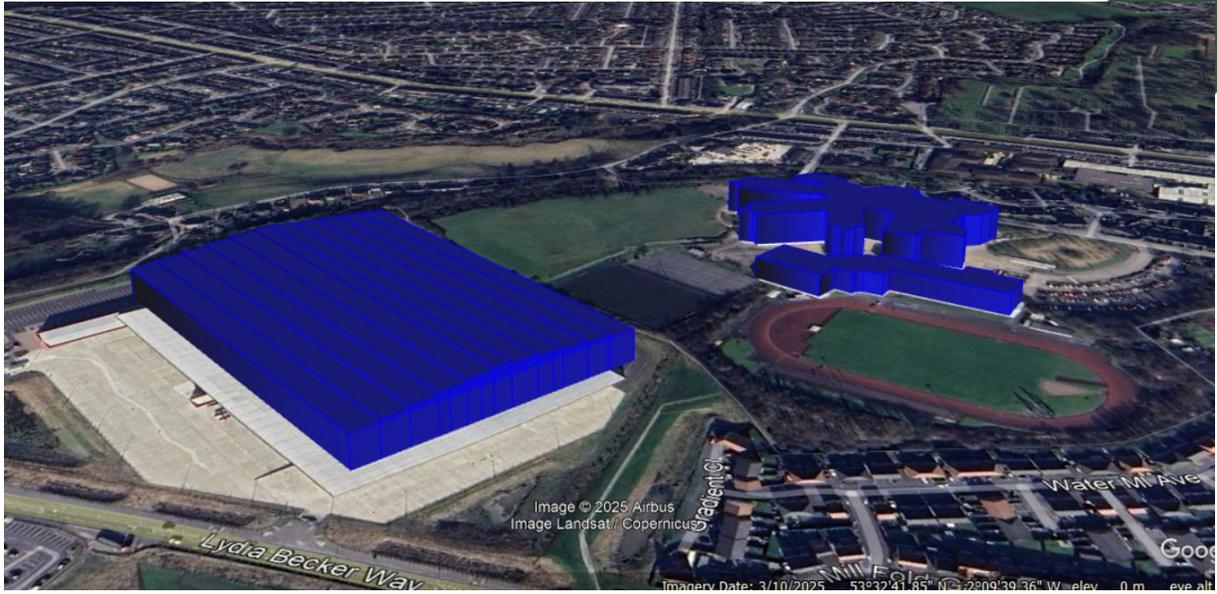


Figure B3: Location of Buildings in Model



# **Appendix C    Predicted NO<sub>2</sub> Concentrations for Existing Sensitive Human Receptors**

**IGC Facility, Unit A, Lydia Becker Way, Oldham**

**Air Quality Assessment**

**Inspired Global Cuisine Ltd**

SLR Project No.: 440.v13945.00001

23 January 2026

## C.1 Predicted NO2 Concentrations

C.1 The predicted NO<sub>2</sub> concentrations for the existing sensitive receptors and points across the receptor grid, for each year of meteorological data, are shown in Figures C1 to C5. The highest results for the receptors considered are highlighted in red.

NOx													
2020													
100% NOx TO NO2 LONG TERM													
50% NOx TO NO2 SHORT TERM				Box 7.16 in TG(22) explains how to model short term concentrations									
RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1		389827.86	405058.84	16.73	8.37	33.92	4.18	16.96	0.45	0.45	13.23	1.13	33.08
ESR 2		389844.96	405151.47	28.09	14.04	39.60	7.02	19.80	1.05	1.05	13.83	2.62	34.57
ESR 3		389852.06	405389.98	23.63	11.82	37.37	5.91	18.69	0.90	0.90	13.68	2.25	34.19
ESR 4		389923.39	405501.97	22.50	11.25	36.81	5.63	18.40	0.69	0.69	13.47	1.72	33.67
ESR 5		390114.45	405374.81	18.33	9.17	42.12	4.58	21.06	0.40	0.40	16.88	1.00	42.19
ESR 6		390138.15	405287.46	18.29	9.14	42.10	4.57	21.05	0.42	0.42	16.90	1.06	42.25
ESR 7		389642.12	405454.89	27.48	13.74	39.30	6.87	19.65	2.31	2.31	15.09	5.78	37.73
ESR 8		389520.30	405345.97	14.99	7.50	33.05	3.75	16.53	0.84	0.84	13.62	2.11	34.05
ESR 9		389768.69	405522.40	25.09	12.54	38.10	6.27	19.05	1.39	1.39	14.17	3.47	35.42
ESR 10		389524.77	404997.95	9.37	4.69	34.11	2.34	17.05	0.25	0.25	14.96	0.63	37.41
ESR 11		389449.55	405104.65	18.44	9.22	34.78	4.61	17.39	0.67	0.67	13.44	1.67	33.61
ESR 12		389400.30	405459.02	14.13	7.07	32.62	3.53	16.31	0.48	0.48	13.26	1.21	33.16
ESR 13		390168.06	405008.77	14.67	7.33	40.29	3.67	20.14	0.29	0.29	16.77	0.74	41.93
ESR 14		390319.88	405328.02	14.22	7.11	40.07	3.56	20.03	0.27	0.27	16.75	0.67	41.87
ESR 15		389664.35	405597.48	20.46	10.23	35.78	5.11	17.89	1.35	1.35	14.13	3.37	35.31
ESR 16		390289.61	405467.04	12.71	6.35	39.31	3.18	19.65	0.24	0.24	16.72	0.61	41.80

2021

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	0	389827.86	405058.84	23.31	11.66	37.21	5.83	18.61	0.72	0.72	13.50	1.79	33.74
ESR 2	0	389844.96	405151.47	29.71	14.85	40.41	7.43	20.21	1.39	1.39	14.17	3.47	35.41
ESR 3	0	389852.06	405389.98	25.81	12.91	38.46	6.45	19.23	0.95	0.95	13.73	2.38	34.32
ESR 4	0	389923.39	405501.97	21.91	10.95	36.51	5.48	18.26	0.69	0.69	13.46	1.71	33.66
ESR 5	0	390114.45	405374.81	19.11	9.56	42.51	4.78	21.26	0.44	0.44	16.92	1.10	42.29
ESR 6	0	390138.15	405287.46	21.68	10.84	43.80	5.42	21.90	0.46	0.46	16.94	1.15	42.34
ESR 7	0	389642.12	405454.89	27.72	13.86	39.42	6.93	19.71	2.37	2.37	15.15	5.93	37.87
ESR 8	0	389520.30	405345.97	15.54	7.77	33.33	3.89	16.66	0.83	0.83	13.61	2.08	34.03
ESR 9	0	389768.69	405522.40	26.65	13.32	38.88	6.66	19.44	1.36	1.36	14.14	3.41	35.35
ESR 10	0	389524.77	404997.95	13.91	6.95	36.38	3.48	18.19	0.31	0.31	15.02	0.77	37.55
ESR 11	0	389449.55	405104.65	17.67	8.84	34.39	4.42	17.20	0.68	0.68	13.46	1.70	33.65
ESR 12	0	389400.30	405459.02	13.81	6.90	32.46	3.45	16.23	0.51	0.51	13.29	1.27	33.21
ESR 13	0	390168.06	405008.77	18.91	9.46	42.41	4.73	21.21	0.40	0.40	16.88	1.01	42.20
ESR 14	0	390319.88	405328.02	17.06	8.53	41.48	4.26	20.74	0.30	0.30	16.77	0.74	41.94
ESR 15	0	389664.35	405597.48	21.57	10.78	36.34	5.39	18.17	1.41	1.41	14.18	3.52	35.46
ESR 16	0	390289.61	405467.04	14.64	7.32	40.28	3.66	20.14	0.28	0.28	16.75	0.69	41.88

2.37

2022

RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	0	389827.86	405058.84	19.47	9.74	35.29	4.87	17.65	0.59	0.59	13.37	1.49	33.43
ESR 2	0	389844.96	405151.47	28.04	14.02	39.58	7.01	19.79	1.19	1.19	13.97	2.98	34.93
ESR 3	0	389852.06	405389.98	23.89	11.95	37.50	5.97	18.75	0.73	0.73	13.51	1.83	33.78
ESR 4	0	389923.39	405501.97	18.72	9.36	34.92	4.68	17.46	0.55	0.55	13.33	1.38	33.33
ESR 5	0	390114.45	405374.81	19.18	9.59	42.54	4.80	21.27	0.36	0.36	16.84	0.90	42.09
ESR 6	0	390138.15	405287.46	18.84	9.42	42.38	4.71	21.19	0.42	0.42	16.90	1.05	42.24
ESR 7	0	389642.12	405454.89	27.31	13.66	39.21	6.83	19.61	2.31	2.31	15.09	5.78	37.72
ESR 8	0	389520.30	405345.97	16.08	8.04	33.60	4.02	16.80	1.10	1.10	13.88	2.74	34.69
ESR 9	0	389768.69	405522.40	25.68	12.84	38.40	6.42	19.20	1.28	1.28	14.06	3.21	35.16
ESR 10	0	389524.77	404997.95	10.46	5.23	34.65	2.62	17.33	0.21	0.21	14.92	0.53	37.31
ESR 11	0	389449.55	405104.65	18.57	9.29	34.84	4.64	17.42	0.51	0.51	13.28	1.26	33.21
ESR 12	0	389400.30	405459.02	13.78	6.89	32.45	3.44	16.22	0.63	0.63	13.41	1.59	33.53
ESR 13	0	390168.06	405008.77	14.67	7.33	40.29	3.67	20.14	0.33	0.33	16.81	0.82	42.01
ESR 14	0	390319.88	405328.02	14.17	7.08	40.04	3.54	20.02	0.26	0.26	16.74	0.64	41.84
ESR 15	0	389664.35	405597.48	20.93	10.46	36.02	5.23	18.01	1.38	1.38	14.15	3.44	35.38
ESR 16	0	390289.61	405467.04	14.26	7.13	40.09	3.57	20.04	0.21	0.21	16.69	0.53	41.72



2023													
RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	0	389827.86	405058.84	16.29	8.14	33.70	4.07	16.85	0.45	0.45	13.23	1.13	33.08
ESR 2	0	389844.96	405151.47	25.38	12.69	38.25	6.35	19.12	0.89	0.89	13.67	2.23	34.17
ESR 3	0	389852.06	405389.98	23.87	11.93	37.49	5.97	18.75	0.85	0.85	13.62	2.11	34.06
ESR 4	0	389923.39	405501.97	19.52	9.76	35.32	4.88	17.66	0.60	0.60	13.38	1.49	33.44
ESR 5	0	390114.45	405374.81	18.31	9.16	42.11	4.58	21.06	0.39	0.39	16.87	0.98	42.18
ESR 6	0	390138.15	405287.46	17.15	8.58	41.53	4.29	20.77	0.39	0.39	16.87	0.98	42.18
ESR 7	0	389642.12	405454.89	27.48	13.74	39.30	6.87	19.65	2.38	2.38	15.16	5.95	37.89
ESR 8	0	389520.30	405345.97	15.30	7.65	33.21	3.82	16.60	0.87	0.87	13.65	2.17	34.12
ESR 9	0	389768.69	405522.40	26.66	13.33	38.89	6.67	19.44	1.41	1.41	14.19	3.53	35.47
ESR 10	0	389524.77	404997.95	10.90	5.45	34.87	2.72	17.44	0.30	0.30	15.01	0.75	37.53
ESR 11	0	389449.55	405104.65	17.90	8.95	34.51	4.48	17.25	0.63	0.63	13.41	1.58	33.53
ESR 12		389400.30	405459.02	13.62	6.81	32.37	3.40	16.18	0.51	0.51	13.29	1.28	33.22
ESR 13		390168.06	405008.77	12.29	6.15	39.10	3.07	19.55	0.24	0.24	16.72	0.61	41.80
ESR 14		390319.88	405328.02	14.40	7.20	40.16	3.60	20.08	0.26	0.26	16.73	0.64	41.83
ESR 15		389664.35	405597.48	20.67	10.34	35.89	5.17	17.95	1.39	1.39	14.16	3.46	35.41
ESR 16	0	390289.61	405467.04	15.54	7.77	40.72	3.88	20.36	0.24	0.24	16.72	0.60	41.79
										2.38			

2024													
RECEPTOR	ADDRESS	GRID REFERENCE		SHORT TERM 99.79th PERCENTILE					LONG TERM				
				PC 99.79th %ile	PC	PEC	PC/AQO	PEC/AQO	PC	PC	PEC	PC/AQO	PEC/AQO
				NO <sub>x</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>2</sub> 1 HOUR	NO <sub>x</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL	NO <sub>2</sub> ANNUAL
X	Y	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	%	%		
ESR 1	0	389827.86	405058.84	19.31	9.66	35.21	4.83	17.61	0.56	0.56	13.34	1.41	33.36
ESR 2	0	389844.96	405151.47	25.86	12.93	38.49	6.47	19.24	1.09	1.09	13.87	2.72	34.67
ESR 3	0	389852.06	405389.98	23.54	11.77	37.33	5.88	18.66	0.93	0.93	13.71	2.34	34.28
ESR 4	0	389923.39	405501.97	21.53	10.77	36.32	5.38	18.16	0.67	0.67	13.45	1.67	33.62
ESR 5	0	390114.45	405374.81	16.84	8.42	41.37	4.21	20.69	0.40	0.40	16.88	1.00	42.19
ESR 6	0	390138.15	405287.46	17.61	8.81	41.76	4.40	20.88	0.40	0.40	16.88	1.01	42.20
ESR 7	0	389642.12	405454.89	27.40	13.70	39.26	6.85	19.63	2.38	2.38	15.16	5.95	37.90
ESR 8	0	389520.30	405345.97	15.59	7.80	33.35	3.90	16.68	0.85	0.85	13.63	2.12	34.07
ESR 9	0	389768.69	405522.40	25.09	12.55	38.10	6.27	19.05	1.34	1.34	14.12	3.35	35.29
ESR 10	0	389524.77	404997.95	10.86	5.43	34.85	2.71	17.43	0.29	0.29	15.00	0.72	37.50
ESR 11	0	389449.55	405104.65	17.33	8.67	34.22	4.33	17.11	0.67	0.67	13.45	1.68	33.62
ESR 12		389400.30	405459.02	14.21	7.10	32.66	3.55	16.33	0.53	0.53	13.31	1.34	33.28
ESR 13		390168.06	405008.77	12.95	6.47	39.43	3.24	19.71	0.30	0.30	16.78	0.76	41.95
ESR 14		390319.88	405328.02	11.82	5.91	38.87	2.96	19.43	0.25	0.25	16.73	0.62	41.82
ESR 15		389664.35	405597.48	21.95	10.98	36.53	5.49	18.27	1.41	1.41	14.19	3.53	35.48
ESR 16	0	390289.61	405467.04	12.86	6.43	39.38	3.21	19.69	0.25	0.25	16.73	0.63	41.82







# **Appendix D Predicted NO<sub>2</sub> Concentrations and Deposition Rates for Existing Sensitive Ecological Receptor Points**

**IGC Facility, Unit A, Lydia Becker Way, Oldham**

**Air Quality Assessment**

**Inspired Global Cuisine Ltd**

SLR Project No.: 440.v13945.00001

23 January 2026

## D.1 Predicted NO<sub>2</sub> Concentrations as a Percentage of the Critical Levels

D.1 The predicted NO<sub>2</sub> concentrations as a percentage of the relevant critical levels for the existing sensitive receptor points within the habitat sites considered, for each year of meteorological data, are shown below.

Rochdale Canal SSSI										
	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 1	0.48%	0.51%	0.57%	0.50%	0.43%	2.41%	3.18%	3.98%	2.56%	2.68%
ECO 2	0.44%	0.51%	0.54%	0.50%	0.42%	3.13%	3.49%	3.06%	3.09%	2.98%
ECO 3	0.41%	0.44%	0.51%	0.49%	0.47%	2.67%	3.09%	2.07%	3.09%	2.50%
ECO 4	0.59%	0.61%	0.65%	0.67%	0.61%	2.85%	3.98%	3.30%	3.18%	3.67%
ECO 5	0.75%	0.73%	0.67%	<b>0.91%</b>	0.68%	3.38%	3.30%	3.13%	4.68%	<b>5.41%</b>
ECO 6	0.81%	0.00%	0.70%	0.90%	0.71%	5.21%	0.00%	3.16%	3.18%	3.89%
ECO 7	0.67%	0.00%	0.66%	0.75%	0.63%	3.30%	0.00%	3.89%	3.69%	3.75%
ECO 8	0.66%	0.00%	0.58%	0.67%	0.64%	4.01%	0.00%	2.64%	4.16%	3.68%
ECO 9	0.39%	0.00%	0.53%	0.42%	0.46%	2.79%	0.00%	3.63%	2.20%	2.40%
ECO 10	0.53%	0.00%	0.76%	0.53%	0.52%	4.03%	0.00%	2.77%	3.00%	2.52%
Rochdale Canal - Lock at Scowcoft Farm to Stotts Lane LWS										
	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 1	0.48%	0.51%	0.57%	0.50%	0.43%	2.41%	3.18%	3.98%	2.56%	2.68%
ECO 2	0.44%	0.51%	0.54%	0.50%	0.42%	3.13%	3.49%	3.06%	3.09%	2.98%
ECO 3	0.41%	0.44%	0.51%	0.49%	0.47%	2.67%	3.09%	2.07%	3.09%	2.50%
ECO 4	0.59%	0.61%	0.65%	0.67%	0.61%	2.85%	3.98%	3.30%	3.18%	3.67%
ECO 5	0.75%	0.73%	0.67%	<b>0.91%</b>	0.68%	3.38%	3.30%	3.13%	4.68%	<b>5.41%</b>
ECO 6	0.81%	0.83%	0.70%	0.90%	0.71%	5.21%	3.49%	3.16%	3.18%	3.89%
ECO 7	0.67%	0.73%	0.66%	0.75%	0.63%	3.30%	3.56%	3.89%	3.69%	3.75%
ECO 8	0.66%	0.68%	0.58%	0.67%	0.64%	4.01%	3.10%	2.64%	4.16%	3.68%
ECO 9	0.39%	0.38%	0.53%	0.42%	0.46%	2.79%	1.89%	3.63%	2.20%	2.40%
ECO 10	0.53%	0.60%	0.76%	0.53%	0.52%	4.03%	2.73%	2.77%	3.00%	2.52%
Hunts Lane LWS										
	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 11	2.29%	<b>2.48%</b>	1.98%	2.25%	2.36%	5.55%	6.21%	5.54%	6.04%	<b>7.39%</b>
ECO 12	1.95%	2.10%	1.78%	1.92%	1.95%	4.84%	6.92%	5.35%	5.91%	4.84%
ECO 13	1.61%	1.75%	1.46%	1.59%	1.61%	4.37%	5.85%	4.77%	4.85%	4.25%
ECO 14	1.37%	1.51%	1.19%	1.35%	1.41%	3.80%	4.74%	4.26%	3.90%	4.73%
River Irk Marsh LWS										
	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 15	0.53%	0.58%	<b>0.77%</b>	0.55%	0.51%	3.22%	3.01%	3.06%	3.19%	2.06%
ECO 16	0.48%	0.54%	0.70%	0.48%	0.47%	<b>3.75%</b>	2.57%	2.70%	2.87%	2.26%

<b>Scowcroft Reservoir LWS</b>										
	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 17	0.11%	0.11%	<u>0.17%</u>	0.13%	0.14%	0.85%	0.79%	<u>0.99%</u>	0.75%	0.93%
<b>Rochdale Canal - Scowcroft to Warland LWS</b>										
	Nox Annual Mean as % of Critical Level					Nox 24 Hour Mean as % of Critical Level				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 18	0.28%	0.35%	<u>0.39%</u>	0.27%	0.29%	1.64%	1.67%	1.73%	<u>1.81%</u>	1.68%

## D.2 Predicted Nutrient Nitrogen Deposition as a Percentage of the Critical Loads

D.2 The predicted nutrient nitrogen deposition as a percentage of the relevant critical loads for the existing sensitive receptor points within the habitat site considered, for each year of meteorological data, are shown below.

Rochdale Canal SSSI										
	NN Deposition Rate as % of Critical Load					PC as % of CLMaxN				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 1	0.41%	0.44%	0.49%	0.43%	0.37%	0.10%	0.11%	0.12%	0.11%	0.09%
ECO 2	0.38%	0.44%	0.47%	0.43%	0.36%	0.09%	0.11%	0.11%	0.11%	0.09%
ECO 3	0.36%	0.38%	0.44%	0.42%	0.41%	0.09%	0.09%	0.11%	0.10%	0.10%
ECO 4	0.51%	0.53%	0.56%	0.58%	0.53%	0.13%	0.13%	0.14%	0.14%	0.13%
ECO 5	0.65%	0.63%	0.58%	<b>0.78%</b>	0.59%	0.16%	0.15%	0.14%	<b>0.19%</b>	0.14%
ECO 6	0.70%	0.71%	0.61%	0.78%	0.62%	0.17%	0.17%	0.15%	0.19%	0.15%
ECO 7	0.58%	0.63%	0.57%	0.64%	0.55%	0.14%	0.15%	0.14%	0.16%	0.13%
ECO 8	0.57%	0.59%	0.50%	0.58%	0.56%	0.14%	0.14%	0.12%	0.14%	0.14%
ECO 9	0.34%	0.33%	0.46%	0.37%	0.40%	0.08%	0.08%	0.11%	0.09%	0.10%
ECO 10	0.46%	0.51%	0.65%	0.46%	0.45%	0.11%	0.13%	0.16%	0.11%	0.11%
Rochdale Canal - Lock at Scowcoft Farm to Stotts Lane LWS										
	NN Deposition Rate as % of Critical Load					PC as % of CLMaxN				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 1	0.41%	0.44%	0.49%	0.43%	0.37%	0.10%	0.11%	0.12%	0.11%	0.09%
ECO 2	0.38%	0.44%	0.47%	0.43%	0.36%	0.09%	0.11%	0.11%	0.11%	0.09%
ECO 3	0.36%	0.38%	0.44%	0.42%	0.41%	0.09%	0.09%	0.11%	0.10%	0.10%
ECO 4	0.51%	0.53%	0.56%	0.58%	0.53%	0.13%	0.13%	0.14%	0.14%	0.13%
ECO 5	0.65%	0.63%	0.58%	<b>0.78%</b>	0.59%	0.16%	0.15%	0.14%	<b>0.19%</b>	0.14%
ECO 6	0.70%	0.71%	0.61%	0.78%	0.62%	0.17%	0.17%	0.15%	0.19%	0.15%
ECO 7	0.58%	0.63%	0.57%	0.64%	0.55%	0.14%	0.15%	0.14%	0.16%	0.13%
ECO 8	0.57%	0.59%	0.50%	0.58%	0.56%	0.14%	0.14%	0.12%	0.14%	0.14%
ECO 9	0.34%	0.33%	0.46%	0.37%	0.40%	0.08%	0.08%	0.11%	0.09%	0.10%
ECO 10	0.46%	0.51%	0.65%	0.46%	0.45%	0.11%	0.13%	0.16%	0.11%	0.11%
Hunts Lane LWS										
	NN Deposition Rate as % of Critical Load					PC as % of CLMaxN				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 11	1.98%	<b>2.14%</b>	1.71%	1.94%	2.04%	0.34%	<b>0.37%</b>	0.30%	0.34%	0.36%
ECO 12	1.68%	1.82%	1.53%	1.66%	1.68%	0.29%	0.32%	0.27%	0.29%	0.29%
ECO 13	1.39%	1.52%	1.26%	1.37%	1.39%	0.24%	0.26%	0.22%	0.24%	0.24%
ECO 14	1.18%	1.31%	1.03%	1.17%	1.22%	0.21%	0.23%	0.18%	0.20%	0.21%
River Irk Marsh LWS										
	NN Deposition Rate as % of Critical Load					PC as % of CLMaxN				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
ECO 15	0.46%	0.50%	<b>0.66%</b>	0.47%	0.44%	0.24%	0.27%	<b>0.35%</b>	0.12%	0.11%
ECO 16	0.42%	0.47%	0.60%	0.42%	0.41%	0.22%	0.25%	0.32%	0.10%	0.10%

<b>Scowcroft Reservoir LWS</b>										
	<b>NN Deposition Rate as % of Critical Load</b>					<b>PC as % of CLMaxN</b>				
	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
ECO 17	0.10%	0.10%	<u>0.14%</u>	0.11%	0.12%	0.02%	0.02%	<u>0.04%</u>	0.03%	0.03%
<b>Rochdale Canal - Scowcroft to Warland LWS</b>										
	<b>NN Deposition Rate as % of Critical Load</b>					<b>PC as % of CLMaxN</b>				
	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
ECO 18	0.25%	0.30%	<u>0.34%</u>	0.24%	0.25%	0.06%	0.07%	<u>0.08%</u>	0.06%	0.06%



# **Appendix E Professional Experience of Assessors**

**IGC Facility, Unit A, Lydia Becker Way, Oldham**

**Air Quality Assessment**

**Inspired Global Cuisine Ltd**

SLR Project No.: 440.v13945.00001

23 January 2026

The assessment of air quality impacts, and the significance of the associated effects, takes into account the professional judgement of the assessor. Details of the experience of the personnel involved with the project are provided below:

**Paul Threlfall**

**BSc (Hons), MSc, MEnvSc, MIAQM**

**Associate Director  
(Air Quality)**

Paul joined Wardell Armstrong (now part of SLR) in October 2017 as an Air Quality Scientist, after completing his MSc Water, Energy and the Environment at Liverpool John Moores University. The majority of his work is carried out in support of planning applications and, therefore, he has experience of undertaking air quality assessments for a wide range of projects including residential developments, commercial developments, and mixed-use developments. Paul also has extensive experience of undertaking detailed air quality assessments for large industrial developments for both planning and permit applications.

Paul has a broad range of skills and knowledge of air quality modelling and monitoring through his involvement in air quality projects, both as individual commissions and as part of Environmental Impact Assessments (EIAs). Paul also has extensive knowledge and experience of undertaking odour assessments, ranging from qualitative desk-based assessments to more detailed odour dispersion modelling assessments using AERMOD, as well as extensive experience of undertaking odour 'sniff test' observations. Paul also has experience of acting as expert witness at planning inquiries in respect of odour.

**Malcolm Walton**

**BSc (Env Health) Dip (Acoustics & Noise Control)  
MCIEH AMIOA**

**Technical Director**

Malcolm holds a Bachelor of Science degree in Environmental Health and the Diploma in Acoustics and Noise Control. Malcolm is a Member of the Chartered Institute of Environmental Health and an Associate Member of the Institute of Acoustics.

Malcolm joined Wardell Armstrong (now part of SLR) in September 2001 following 12 years working as an Environmental Health Officer in several local authorities, responsible for the enforcement of environmental legislation and, in particular, air pollution and noise nuisance. As a consultant, Malcolm has a further 24 years experience in the technical co-ordination of environmental appraisal of large schemes to UK and international standards. Malcolm regularly carries out and co-ordinates noise and air quality assessment work associated with planning applications including EIA work and PPC permit application/compliance. He also regularly acts as expert witness in planning inquiries in respect of noise, air quality and odour.

