
OPM DEVELOPMENTS LIMITED

ODOUR RISK ASSESSMENT

SOUTH LODGE, BELLE VUE LANE, EAST BOLDON
NE36 0AN

Client: OPM Developments Limited

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1 INTRODUCTION

1.1 Introduction to Report

- 1.1.1 By instruction from OPM Developments Limited, NoiseAir Limited was commissioned to undertake an Odour Risk Assessment (ORA) in support of a Proposed Development at South Lodge, Belle Vue Lane, East Boldon NE36 0AN, herein referred to as the 'Site'.
- 1.1.2 It is understood that a planning application is to be submitted for the conversion of an outbuilding within the garden of the Site into a small-scale microbrewery and cheesery visitor centre, for production and educational use.
- 1.1.3 The processes associated with this use have the potential to generate odour emissions that may affect residential amenity in the surrounding area. As such, an ORA is required to assess the potential for odour emissions, evaluate their impact on nearby receptors, and identify any constraints on the Proposed Development.
- 1.1.4 General limitations of this report are outlined in **Appendix A**.

1.2 Site Location and Report Context

- 1.2.1 The Site is located within the jurisdiction of South Tyneside Council at approximate National Grid Reference (NGR): 436478, 560683. **Figure 1** details the location of the Site.
- 1.2.2 The Site is situated in a rural area to the southwest of East Boldon. It is bounded by Belle Vue Lane to the west and Mundles Lane to the east. The closest sensitive receptors are dwellings located opposite Belle Vue Lane, approximately 20 m west of the southernmost boundary of the Proposed Development. To the north, south and further east, the Site is surrounded by undeveloped green land.
- 1.2.3 It is understood that the proposed microbrewery and cheesery will be served by independent extraction systems, each designed to suit the specific requirements of the respective processes.
- 1.2.4 For the microbrewery, the extraction requirement is expected to be minimal. The system will primarily serve to remove steam generated during the mash heating process, rather than to control odour emissions, which are anticipated to be low. In relation to the cheesery, the extraction system is intended to provide general ventilation. While significant odour generation is not anticipated, a filtered extraction system is proposed as a precautionary measure to mitigate any potential odour emissions.

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- 1.2.5 At this stage, outline specifications have been provided for the filter fan units under consideration. However, the exact locations and heights of the exhaust points have not yet been finalised and will be confirmed as the design develops.

2 ODOUR LEGISLATION, POLICY AND GUIDANCE

2.1 Odour Definition

2.1.1 The Institute of Air Quality Management (IAQM) guidance¹ defines odour as:

"[...] the human olfactory response (perception followed by psychological appraisal) to one, or more often a complex mixture of, chemical species in the air."

2.1.2 The stated definition is considered to be relevant in the context of this assessment.

2.2 National Legislation

Environmental Protection Act

2.2.1 There are currently no statutory standards that cover the release of odour, and its subsequent impacts in the United Kingdom. This is due to the inherently subjective nature of odours and the complexities of measuring and assessing it.

2.2.2 It is however recognised that odours can potentially pose a nuisance for residents residing near an offensive source. Determination of an odour constituting a statutory nuisance is usually the local planning authority or the Environment Agency.

2.2.3 Section 79 of Part III of the Environmental Protection Act (1990)² defines nuisance as:

"Any dust, steam, odour or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance."

2.2.4 Enforcement of the Act, in regard to nuisance, is currently under the jurisdiction of the local Environmental Health Department, whose officers are deemed to provide an independent evaluation of nuisance. If the Local Authority is satisfied that a statutory nuisance exists, or is likely to occur or happen again, it must serve an Abatement Notice under Part III of the Environmental Protection Act (1990). The only defence is to show that the process to which the nuisance has been attributed and its operation are being controlled according to best practicable means.

2.2.5 The legislative controls described above were considered as necessary throughout the undertaking of the assessment.

¹ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

² Environmental Protection Act. London 1990. HMSO.

2.3 Planning Policy

National Planning Policy Framework (2024)

2.3.1 The revised National Planning Policy Framework³ (NPPF) was published in 2024. The NPPF sets out the Government's planning policies for England and how these are expected to be applied.

2.3.2 The purpose of the planning system is to contribute to the achievement of sustainable development. In order to ensure this, the NPPF recognises three overarching objectives, including the following environmental objective which is of relevance to odour:

"to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

2.3.3 Chapter 12 of the NPPF details objectives in relation to achieving well-designed place and to prevent unacceptable risks from pollution. It states that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by [...] preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air quality."

and

"Planning policies and decisions should ensure that developments:

*f) create places that are safe, inclusive and accessible and which promote health and **well-being, with a high standard of amenity for existing and future users; and where** crime and disorder, and the fear of crime, do not undermine the quality of life and community cohesions and resilience."*

2.3.4 The NPPF is supported by the Planning Practice Guidance (PPG)⁴, which makes clear that:

³ NPPF, Ministry of Housing, Communities and Local Government, 2024.

⁴ Department of Communities and Local Government (DCLG) (Updated November 2019) National Planning Practice Guidance.

“Odour [...] can also be a planning concern, for example, because of the effect on local amenity.”

2.3.5 It also provides options for mitigating impacts, stating:

“Mitigation options where necessary, will depend on the proposed development and should be proportionate to the likely impact.”

2.4 Odour Guidance

Environment Agency

2.4.1 The Environment Agency has produced a guidance note (H4)⁵, which is designed for operators of Environment Agency-regulated processes. The guidance is primarily aimed at methods to control and manage odour release and contains a number of recommended assessment methods which can be used to assess potential odour impacts.

IAQM Guidance

2.4.2 The IAQM guidance⁶ sets out assessment methods which may be utilised in the assessment of odours for planning applications. It is the only UK odour guidance document which contains a method for estimating the significance of potential odour impacts.

2.4.3 Some of the methods and the significance criteria outlined in the IAQM guidance have been adopted in this assessment.

⁵ Additional Guidance for H4 Odour Management How to comply with your Environmental Permit, Environment Agency, 2011.

⁶ Institute of Air Quality Management (2018) Guidance on the Assessment of Odour for Planning (version 1.1).

3 METHODOLOGY

3.1 Approach

- 3.1.1 Assessing odour impacts is a subjective and challenging science. There are a number of odour assessment methods and tools that have been developed and utilised in UK planning applications. These include desk-based methods, such as complaints analysis and qualitative risk assessment, through to field odour surveys (sniff testing) and dispersion modelling. Each has advantages and disadvantages with not all assessment methods being appropriate in every case.
- 3.1.2 The need to combine odour assessment tools within the study is a feature that often distinguishes odour assessments from conventional air quality assessments. In accordance with the IAQM guidance, drivers for using multiple assessment tools within a study are:
- The partly subjective nature of odour and the wide differences that exist in population response; and
 - The fact that there is no “silver bullet” assessment tool that on its own provides an unequivocal answer – results from each of the different techniques tend to give information only on some limited aspect of the odour impact or effect.
- 3.1.3 As the Proposed Development is not yet operational, there is no complaints log to review, and given the size and nature of the potential odour source, a qualitative ORA has therefore been the focus of this report.

3.2 FIDOL Factors

- 3.2.1 The scale of exposure (the impact) is determined by the parameters collectively known as the FIDO factors (Frequency, Intensity, Duration and Offensiveness; these are described in **Table 1**). The magnitude of the effect experienced is determined by the scale of exposure (FIDO) and the sensitivity of the receptor (L, denoting the location, which is often taken to be a surrogate for the sensitivity and incorporates the social and psychological factors that can be expected for a given community).
- 3.2.2 Different combinations of the FIDO factors can result in different exposures at a location. For example, odours may occur as a one-off, as frequent short bursts, or for longer, less-frequent periods, and may be said to give ‘acute’ or ‘chronic’ exposures respectively.
- 3.2.3 The concept of FIDOL factors have been used in the qualitative odour risk assessment.

3.2.4 The FIDOL factors are presented in **Table 1**.

Table 1: FIDOL Factors Descriptions from IAQM Guidance	
Factor	Description
Frequency	How often an individual is exposed to odour.
Intensity	The individual's perception of the strength of the odour.
Duration	The overall duration that individuals are exposed to an odour over time.
Odour Unpleasantness	Odour unpleasantness describes the character of an odour as it relates to the 'hedonic tone' (which may be pleasant, neutral or unpleasant) at a given odour concentration/intensity. This can be measured in the laboratory as the hedonic tone, and when measured by the standard method and expressed on a standard nine-point scale it is termed the hedonic tone, and is scored on a scale of +4 to -4 where: - +4 = Pleasant odours; - 0 = Neutral odours; and - -4 = Foul odours.
Location	The type of land use and nature of human activities in the vicinity of an odour source. Tolerance and expectation of the receptor. The 'Location' factor can be considered to encompass the receptor characteristics, receptor sensitivity, and socio-economic factors.

3.3 Locations included in the Assessment

3.3.1 The assessment focuses on the nearest sensitive receptors to the Proposed Development. The closest dwellings are located opposite Belle Vue Lane, approximately 20 m west of the southernmost boundary of the Site. These receptors have been selected for assessment due to their close proximity and represent the locations most likely to experience any potential odour effects.

3.3.2 The locations of the Proposed Development and nearest dwellings are shown in **Figure 1**, which illustrates the Site and its surroundings.

3.4 Qualitative Odour Risk Assessment

3.4.1 A qualitative odour risk assessment has been carried out in accordance with the IAQM guidance, to determine the 'risk' of an odour effect occurring as a result of the operation of the Proposed Development. This has been established using a source-pathway-receptor approach, which is conceptualised as the overall risk depends on the probability of an event occurring together with the likely consequences if it was to occur.

- 3.4.2 The probability of an odour impact occurring and the likely magnitude of effect resulting from the exposure determine the risk of an odour effect occurring, and can be estimated using the following relationship:

$$\text{Effect} \approx \text{Dose} \times \text{Response}$$

- 3.4.3 The **Dose** (impact) is considered equivalent to the odour impact (exposure) and can be determined by the FIDO of the FIDOL factors. The **Response** (receptor sensitivity) is determined by the L factor of the FIDOL factors.

Source Odour Potential

- 3.4.4 The first stage in the assessment is to determine the Source Odour Potential of site activities, which takes into account the following:
- The scale (magnitude) of the release from the odour source, taking into account the effectiveness of any odour control or mitigation measures that are already in place. This involves judging the relative size of the release rate (although is unlikely that actual odour release rates (in units of oue/s), will be available if a qualitative assessment is being carried out after mitigation and taking account of any pattern of release (e.g. intermittency);
 - How inherently odorous the emission is. In some cases, it may be known whether the release has a low, medium or high odour detection threshold (ODT); this is the concentration at which an odour becomes detectable to the human nose. In most instances the odours released by a source will be a complex mixture of compounds and the detectability will not be known. However, for some industrial processes the odour will be due to one or a small number of known compounds and the detection thresholds will be a good indication of whether the release is highly odorous or mildly odorous; and
 - The relative pleasantness/unpleasantness; this can be measured in the laboratory as the hedonic tone, and when measured by the standard method and expressed on a standard nine-point scale it is termed the hedonic score. Lists of relative pleasantness of different substances are given in the Environment Agency guidance H4 Odour Management and in more detail in the SEPA document Odour Guidance 2010⁷.
- 3.4.5 Using the example risk ranking in **Table 2**, the Source Odour Potential can be categorised as **small, medium or large**.

⁷ Scottish Environmental Protection Agency (SEPA), Odour Guidance, January 2010.

Table 2: Risk Factors for Source Odour Potential	
Risk Rating	Magnitude/Unpleasantness/Mitigation and Control
Large	Magnitude: Larger permitted processes of odorous nature or large Sewage Treatment Works (STWs); materials usage hundreds of thousands of tonnes/m³ per year; area sources of thousands of m². The compounds involved are very odorous (e.g. mercaptans), having very low ODTs where known. Unpleasantness: Processes classed as “Most offensive” in EA Guidance H4 or (where known) compounds/odours having unpleasant (-2) to very unpleasant (-4) hedonic score. Mitigation and Control: Open air operation with no containment, reliance solely on good management techniques and best practice.
Medium	Magnitude: Smaller permitted processes or small Sewage Treatment STWs; materials usage thousands of tonnes/m³ per year; area sources of hundreds of m². The compounds involved are moderately odorous. Unpleasantness: Processes classed in H4 as “Moderately offensive”; or (where known) odours having neutral (0) to unpleasant (-2) hedonic score. Mitigation and Control: Some mitigation measures in place, but significant residual odour remains.
Small	Magnitude: Falls below Environmental Permit Part B threshold; materials usage hundreds of tonnes/m³ per year; area sources of tens m². The compounds involved are only mildly odorous, having relatively high ODTs where known. Unpleasantness: Processes classed as “Less offensive” in H4; or (where known) compounds/odours having neutral (0) to very pleasant (+4) hedonic score. Mitigation and Control: Effective, tangible mitigation measures in place (e.g. BAT, BPM) leading to little or no residual odour.

Pathway Effectiveness

3.4.6 The next step is to estimate the effectiveness of the pollutant pathway as the transport mechanism for odour through the air to the receptor, versus the dilution/dispersion in the atmosphere. Any factor that increases dilution and dispersion of odorous emissions as they travel from source to receptor will reduce the concentration at the end point and hence reduce exposure. Important factors for consideration are:

- The distance of sensitive receptors from the odour source;
- Whether these receptors are downwind (with respect to the predominant prevailing wind direction). Odour episodes often tend to occur during stable atmospheric conditions with low wind speed, which gives poor dispersion and dilution; receptors close to the source in all directions around it can be affected under these conditions. When conditions are not calm, it will be the downwind receptors that are affected. Therefore, receptors that are downwind with respect to the prevailing wind direction tend to be at higher risk of odour impact overall;
- The effectiveness of the point of release in promoting good dispersion, e.g. releasing the emissions from a high stack will - all other things being equal - increase the pathway, dilution and dispersion; and

- The topography and terrain between the source and the receptor. The presence of topographical features such as hills and valleys, or urban terrain features such as buildings can affect air flow and therefore increase or inhibit dispersion and dilution.

3.4.7 Using the example risk ranking in **Table 3**, the pollutant pathway from source to receptor can be categorised as **ineffective**, **moderately effective**, or **highly effective**.

Table 3: Risk Factors for Pathway Effectiveness	
Pathway Effectiveness	Distance/Direction/Effectiveness of Dispersion/Dilution
Highly effective	Distance: Receptor is adjacent to the source/site; distance well below any official set-back distances. Direction: High frequency (%) of winds from source to receptor (or, qualitatively, receptors downwind of source with respect to prevailing wind). Effectiveness of dispersion/dilution: open processes with low-level releases, e.g. lagoons, uncovered effluent treatment plant, landfilling of putrescible wastes.
Moderately effective	Distance: Receptor is local to the source. Where mitigation relies on dispersion/dilution: releases are elevated but compromised by building effects.
Ineffective	Distance: Receptor is remote from the source; distance exceeds any official set-back distances. Direction: Low frequency (%) of winds from source to receptor (or, qualitatively, receptors upwind of source with respect to prevailing wind). Where mitigation relies on dispersion/dilution: Releases are from high level (e.g. stacks, or roof vents >3m above ridge height) and are not compromised by surrounding buildings.

3.4.8 The sensitivity of the receiving receptor can be defined as **low**, **medium**, or **high** as is defined based on the criteria shown in **Table 4**.

Table 4: Receptor Sensitivity	
Sensitivity	Description
High	Surrounding land where: - users can reasonably expect enjoyment of a high level of amenity; and - people would reasonably be expected to be present here continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. - Examples may include dwellings, hospitals, schools/education and tourist/cultural.
Medium	Surrounding land where: - users would expect to enjoy a reasonable level of amenity, but wouldn't reasonably expect to enjoy the same level of amenity as in their home; or - people wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. - Examples may include places of work, commercial/retail premises and playing/recreation fields.
Low	Surrounding land where: - the enjoyment of amenity would not reasonably be expected; or - there is transient exposure, where the people would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. - Examples may include industrial, farms, footpaths and roads.

- 3.4.9 The estimated Source Odour Potential and Pathway Effectiveness are considered together to predict the risk of odour exposure (impact) at each receptor location, as shown in the matrix in **Table 5**.

Table 5: Risk of Odour Exposure (Impact) at the Specific Receptor Location			
Pathway Effectiveness	Source Odour Potential		
	Small	Medium	Large
Highly effective pathway	Low Risk	Medium Risk	High Risk
Moderately effective pathway	Negligible Risk	Low Risk	Medium Risk
Ineffective pathway	Negligible Risk	Negligible Risk	Low Risk

- 3.4.10 The final step is to determine the significance of odour effect at each specified receptor location through the interaction between sensitivity and risk, as outlined in **Table 6**.

Table 6: Significance of Odour Effect at the Specific Receptor Location			
Risk of Odour Exposure	Receptor Sensitivity		
	Low	Medium	High
High	Slight Adverse	Moderate Adverse	Substantial Adverse
Medium	Negligible	Slight Adverse	Moderate Adverse
Low	Negligible	Negligible	Slight Adverse
Negligible	Negligible	Negligible	Negligible

3.5 Significance

- 3.5.1 The qualitative odour risk assessment results in a prediction of the likely odour effect at each location. The IAQM guidance states that an assessment must reach a conclusion on the likely significance of the overall predicted effect, and advises that the overall significance of odour effects on a development is determined using professional judgement, by taking account of the significance of impacts all locations, stating that:

“Where the overall effect is greater than “slight adverse”, the effect is likely to be considered significant. Note that this is a binary judgement: either it is “significant” or it is “not significant”. Concluding that an effect is significant should not mean, of itself, that a development proposal is unacceptable and the planning application should be refused; rather, it should mean that careful consideration needs to be given to the consequences, scope for securing further mitigation, and the balance with any wider environmental, social and economic benefits that the proposal would bring.”

3.5.2 The IAQM guidance recognises that assessment of odour requires some degree of professional judgement. Qualitative methodologies such as those utilised within this report provide guidance for assessing potential impacts. However, professional judgement should be exercised in order to take account of the specific details which are unique to each development. This has been considered as necessary throughout the assessment.

4 BASELINE

4.1 Introduction

- 4.1.1 Existing conditions in the vicinity of the Site were identified to provide a baseline for the assessment. These are detailed in the following sections.

4.2 Site Description

- 4.2.1 The Site is situated in a rural area to the southwest of East Boldon, bounded by Belle Vue Lane to the west and Mundles Lane to the east. The nearest sensitive receptors comprise residential dwellings located opposite Belle Vue Lane, approximately 20 m west of the southernmost Site boundary. Further residential receptors are located approximately 30 m west of the northern Site boundary, with a larger residential area located approximately 180 m to the northeast. These receptors are identified in **Table 7** and shown in **Figure 1**. The surrounding land to the north, south, and east is predominantly undeveloped.

Table 7: Nearby Sensitive Receptors	
Receptor	Description
R1	Residential receptor located approximately 20 m west of the southernmost Site boundary, opposite Belle Vue Lane.
R2	Residential receptors located approximately 30 m west of the northern Site boundary.
R3	Residential receptors forming a wider residential area located approximately 180 m to the northeast of the Site.

- 4.2.2 South Lodge is designed as a flexible teaching and small-scale production space, incorporating both a microbrewery and a cheesery. The main central area will function as a teaching space, arranged with workstations to support group learning and demonstrations. Dedicated areas for the microbrewery and cheesery are provided adjacent to this space, supporting small-scale production and educational activities. Supporting facilities include a small kitchenette, an accessible WC, an additional bathroom, and storage space to meet operational needs.

4.3 Meteorological Conditions

- 4.3.1 The potential for atmospheric conditions to affect sensitive receptor locations depends largely on local meteorology, particularly wind direction at the time of release. To consider prevailing conditions at the Site, a review of historical weather data was undertaken.

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- 4.3.2 Historical meteorological data from 2021 to 2025 at the Site has been obtained from assimilation and short-term forecast fields of the Numerical Weather Prediction (NWP) system known as the Global Forecast System (GFS) which is used to forecast meteorological data for specific locations. The 5-year windrose for NGR 436478, 560683, corresponding to the Site, is presented in **Figure 2**.
- 4.3.3 The most frequent winds at the Site come from the southwest, while winds from the east are comparatively infrequent.

5 ODOUR IMPACT ASSESSMENT

5.1 Qualitative Odour Risk Assessment

5.1.1 The Site may have the potential to cause odour impacts at nearby dwellings. The risk of odour associated with the Proposed Development has therefore been assessed at nearby existing residential properties in accordance with the IAQM methodology.

5.1.2 The first step of the odour risk assessment was to classify the Source Odour Potential. This is summarised in **Table 8**.

Table 8: Source Odour Potential		
Source	Source Odour Potential	Justification
Microbrewery (small scale production and teaching use)	Small	Magnitude: Very low throughput associated with small batch teaching scale operations, with limited fermentation volume and short duration processes. Unpleasantness: Odours associated with brewing (wort, yeast, fermentation) are generally neutral to slightly pleasant and classed as “less offensive” within IAQM H4. Mitigation and Control: Extract ventilation system primarily serving to remove steam generated during mash heating, resulting in low residual odour potential.
Cheesery (small scale production and teaching use)	Small	Magnitude: Small batch milk processing with limited production volumes and short retention time of by-products such as whey, consistent with teaching scale operations. Unpleasantness: Odours associated with milk processing and fresh fermentation are slightly sour but generally within neutral to mildly unpleasant hedonic range; not comparable to industrial dairy or waste treatment processes. Mitigation and Control: Filtered extraction system for general ventilation to reduce accumulation of odorous air within processing areas and minimise potential odour emissions.

5.1.3 The Pathway Effectiveness was subsequently defined between the Proposed Development and the nearest dwellings, based on the distance from the Site boundary and the prevailing wind direction in relation to the Site. This is summarised in **Table 9**, and the residential receptors considered within the assessment are shown in **Figure 1**.

Table 9: Pathway Effectiveness at the Existing Dwellings		
Receptor	Pathway Effectiveness	Justification
R1	Highly Effective	Distance: Receptor is adjacent to the source/site; distance well below any official set-back distances.

Table 9: Pathway Effectiveness at the Existing Dwellings		
Receptor	Pathway Effectiveness	Justification
R2	Highly Effective	Distance: Receptor is adjacent to the source/site; distance well below any official set-back distances.
R3	Highly Effective	Direction: High frequency (%) of winds from source to receptor (or, qualitatively, receptors downwind of source with respect to prevailing wind).

- 5.1.4 The above information has been used to determine the effect significance at the residential locations considered in the assessment. These locations are considered ‘high sensitivity’ receptors in accordance with IAQM guidance. This is summarised in **Table 10**.

Table 10: Risk of Odour Exposure (Impact) and Likely Magnitude of Odour Effect					
Location	Source Odour Potential	Pathway Effectiveness	Exposure Risk	Sensitivity	Effect Significance
R1	Small	Highly Effective	Low	High	Slight Adverse
R2	Small	Highly Effective	Low	High	Slight Adverse
R3	Small	Highly Effective	Low	High	Slight Adverse

- 5.1.5 As shown in **Table 10**, the predicted significance of the odour effect of the Proposed Development is **slight adverse** at the nearby residential receptors.
- 5.1.6 The IAQM guidance states that the effect is considered significant if the impact is greater than slight, therefore, the qualitative odour assessment indicates that the overall effect of the Proposed Development on existing sensitive receptors is **not significant**.

5.2 Mitigation Measures

- 5.2.1 The assessment has found that once operational, activities undertaken at the Proposed Development are unlikely to result in significant odour impacts at the nearest existing dwellings in the absence of mitigation.
- 5.2.2 While additional mitigation measures are therefore not considered necessary, the Proposed Development will include independent extraction systems for the microbrewery and cheesery, each designed to suit the specific requirements of the respective processes. For the microbrewery, the system will primarily serve to remove steam generated during the mash heating process, rather than control odour emissions. In relation to the cheesery, a

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- filtered extraction system is proposed as a precautionary measure to mitigate any potential odour emissions.
- 5.2.3 Good housekeeping measures will also be implemented as standard practice to minimise the potential for odour generation. These will include regular cleaning of equipment and surfaces, appropriate storage and timely removal of waste and by-products, and routine maintenance of plant and extraction systems to ensure effective operation.
- 5.2.4 At this stage, outline specifications have been provided for the filter fan units under consideration. However, the exact locations and heights of the exhaust points have not yet been finalised and will be confirmed as the design develops.
- 5.2.5 An Odour Management Plan (OMP) can be prepared and implemented, if required by the Local Planning Authority, to formalise operational procedures, maintenance regimes, and complaint response protocols.
- 5.2.6 The proposed mitigation measures, together with good operational practices, will further reduce any potential odour risks. While occasional increases in odour may occur during abnormal operating conditions or adverse weather, such events are expected to be infrequent and would be managed through appropriate maintenance and operational controls.

6 DISCUSSIONS AND CONCLUSIONS

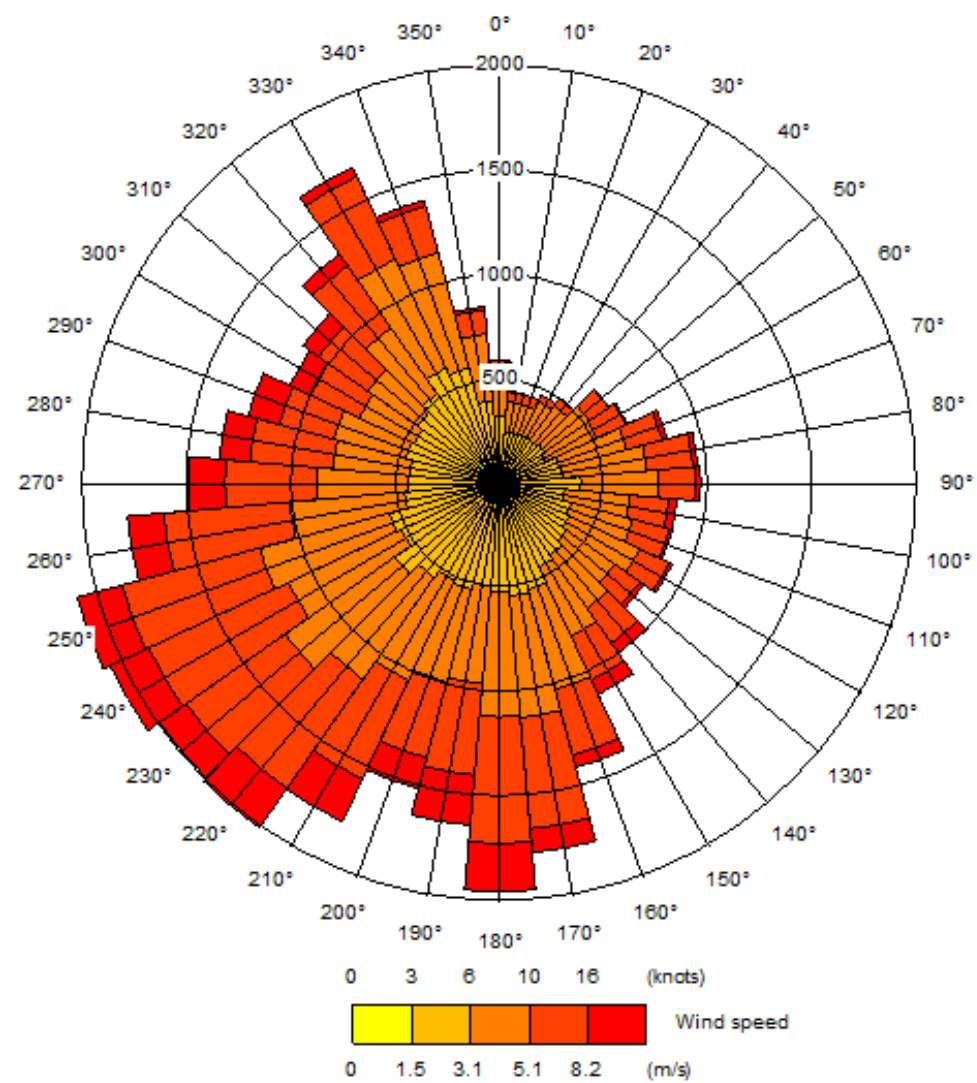
- 6.1.1 NoiseAir Limited was commissioned to undertake an ORA in support of a Proposed Development at South Lodge, Belle Vue Lane, East Boldon NE36 0AN.
- 6.1.2 The Proposed Development involves the conversion of an outbuilding within the garden into a small-scale microbrewery and cheesery visitor centre, for production and educational use. An ORA was therefore undertaken to evaluate the potential for odour impacts from the operation of the facility affecting the residential amenity of existing dwellings in the surrounding area.
- 6.1.3 Review of historical weather data was undertaken for the Site. The 5-year windrose is presented in **Figure 2** and shows that the most frequent winds at the Site originate from the southwest, with winds from the east occurring less frequently. As the nearest sensitive receptors are located to the west of the Site, they will be upwind under the predominant wind conditions and only intermittently downwind during less frequent easterly wind events. However, due to their close proximity to the Site boundary, pathway effectiveness is considered highly effective.
- 6.1.4 In accordance with IAQM guidance, and based on the results of the qualitative odour risk assessment, potential impacts from the Proposed Development on sensitive receptors are unlikely to result in any loss of residential amenity. As such, odour impacts are considered **not significant**.
- 6.1.5 Significant additional mitigation measures are not required from an odour perspective. However, the Proposed Development includes independent extraction systems for the microbrewery and cheesery, each designed to suit the specific requirements of the respective processes. In addition, good housekeeping measures will be implemented and maintained as standard practice to minimise the potential for odour generation. An OMP can also be prepared and implemented, if required by the Local Planning Authority, to formalise operational procedures and maintenance regimes. Together, these measures will help minimise odorous emissions and reduce the potential for adverse effects at nearby receptors
- 6.1.6 Based on the above, odour should not be considered a constraint to planning consent for the Proposed Development.

FIGURES

Figure 1 Site Location and Nearby Receptors



Figure 2 5-year Meteorological Data (52.805, -2.505)



APPENDIX A – REPORT LIMITATIONS

This Report is presented to OPM Developments Limited and may not be used or relied on by any other person or by the client in relation to any other matters not covered specifically by the scope of this report.

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