

CAMBRIDGE NORTH

ODOUR STATEMENT

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PREPARED BY

ARUP

Brookgate Land Limited

Cambridge North

Odour Statement

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1. Introduction

An odour assessment had been scoped out of the Environmental Impact Assessment (EIA) as there are no sources of odour associated with the Proposed Development. However, in line with the technical note produced by Cambridge City Council (CCC) for the Cambridge Water Recycling Centre (CWRC)¹ and the Scoping Report for the Proposed Development, this odour statement has been produced to accompany the application, because the Proposed Development lies within 400m of the CWRC.

This document addresses the potential odour impacts on the Proposed Development. It has been prepared by Ove Arup and Partners Ltd (Arup) to assess the suitability of the site for the proposed uses in relation to the potential odour impacts of the CWRC on the Proposed Development.

2. Potential Impacts

There are no sources of odour associated with the Proposed Development, therefore potential impacts are limited to the odour emissions from the CWRC and whether they impact on the amenity of the future receptors on the Proposed Development Site.

The Proposed Development lies within the CWRC Safeguarding Area (a 400m area around existing treatment works set by Policy SSP W7I – Cambridge WRC in the Site Specific Proposals Development Plan Document (2012)²) shown in Figure 1. Therefore, existing odour emissions from CWRC must be considered with the CCC technical note being a material consideration.

3. Consultation

Arup have consulted with CCC on various iterations of the odour assessments of the CWRC from 2019 to 2021. The result of which was the commissioning of the latest odour assessment of the CWRC (Olfasense addendum report³) discussed in the CCC technical note. The Scoping Opinion⁴ agreed with the proposal to use the methodology outlined in the CCC technical note, a material consideration for odour.

¹ Cambridge City Council (2021) Technical note on interpretation of ‘Odour Impact Assessment for Cambridge Water Recycling Centre’ Report / Study (Odournet, October 2018 – ref. CACC17A_08_final) as a material consideration in determining Planning Applications in the vicinity of Cambridge Water Recycling Centre (CWRC) - Version - Final: 20-05-21

² Cambridgeshire County Council, Peterborough City Council (2012) Cambridgeshire & Peterborough Minerals & Waste Development Plan: Site Specific Proposals Development Plan Document, Adopted 22 February 2012

³ Olfasense addendum report titled ‘Addendum Report: Updated odour dispersion modelling for Cambridge Water Recycling Centre, 21 December, 2020 - Client: South Cambridgeshire District Council / Report Number: CACC19A_06 / Project Code CACC19A’

⁴ South Cambridgeshire District Council (2022) Scoping Opinion, Land Cambridge North Commercial Quarter, Cambridge (Planning Reference: 21/05178/SCOP)



Figure 1: Proposed Development in relation to the CWRC Safeguarding Area

4. Methodology

Following the CCC technical note, this Odour Statement sets out how the application has regard to the following:

- The CCC technical note¹;
- The previous CCC Odour Report⁵;
- Olfasense addendum report³;
- Cambridge Waste Water Treatment Works (W7I - WWTW) 400m Safeguarding Area requirements: Inset Map No. 84²;
- Relevant Government, national and industry standards, codes of practice and best practice technical guidance;
- The Institute of Air Quality Management (IAQM) ‘Guidance on the assessment of odour for planning’ (Version 1.1 - July 2018)⁶; and
- Environment Agency H4 odour guidance⁷.

The CCC technical note¹ sets out a methodology to determine the acceptability of development within different odour exposure contours in the vicinity of the CWRC. This is reproduced in Table 1 below. Table 1 sets out where mitigation may be possible and the types of mitigation that would be acceptable. The CCC technical note refers to the IAQM guidance⁶ to determine receptor sensitivity to odours. Table 2 reflects the descriptions from the guidance.

Following Policy CS31 of the Minerals and Waste Core Strategy (2011)⁸ and Policy 16 of the Minerals and Waste Local Plan 2036 (2021)⁹, an odour assessment report considering the existing odour emissions is required. The CCC technical note interprets the results of the Olfasense Addendum Report³ which assesses the existing odour emissions from the CWRC and provides the contour plots from the modelled worst case year (2013) from the dispersion modelling in the Addendum Report – the odour exposure contours for 3, 5, 6 and 10 odour units¹⁰ (98th percentile (C98) 1-hour ou_E/m^3). The Olfasense Addendum Report provides a relevant odour assessment report of the existing odours from the CWRC and therefore has been used, which satisfies the Minerals and Waste policies.

⁵ Cambridge City Council (2019) Technical note on interpretation of ‘Odour Impact Assessment for Cambridge Water Recycling Centre’ (October 2018) as a material consideration in determining Planning Application in the vicinity of Cambridge Water Recycling Centre - Version 1 – April 2019

⁶ Bull et al (2018). IAQM Guidance on the assessment of odour for planning – version 1.1, Institute of Air Quality Management, London. www.iaqm.co.uk/text/guidance/odour-guidance-2018

⁷ Environment Agency (2011) H4 Odour Management (March 2011)

⁸ Cambridgeshire County Council, Peterborough City Council (2011) Cambridgeshire & Peterborough Minerals & Waste Core Strategy Development Plan Document Submission Plan

⁹ Cambridgeshire County Council, Peterborough City Council (2021) Cambridgeshire & Peterborough Minerals and Waste Local Plan 2036, Adopted July 2021

¹⁰ The contours are based on the predicted 98th percentile (C98) value of hourly average odour concentration units (as advised in IAQM guidance) and measured in European odour units per cubic metre of air (C98 1-hour ou_E/m^3).

Table 1: Acceptability of development within different odour exposure contours in the vicinity of CWRC - extracted from CCC technical note

Odour Exposure Contour (C98 1-hr, OU_E/m^3)	Types of development / uses that are unlikely to be suitable even with mitigation	Types of development / uses that may be suitable	Types of development / uses that are likely to be suitable
<3 (outside 3)	N/A – odour not a constraint.	N/A – odour not a constraint.	N/A – odour not a constraint.
3 to <5	<p>High Sensitivity Receptors</p> <p>New high sensitivity receptors including residential, hospitals, school / educational uses and tourist / cultural uses (includes all uses in Use Classes C & D apart from outdoor playing / recreation fields).</p>	<p>High Sensitivity Receptors</p> <p>Extension / expansion of established existing residential, hospitals, school/educational uses and tourist / cultural uses (C & D planning use classes). This does not cover householder applications. Consideration may need to be given to possible mitigation.</p>	<p>Medium Sensitivity Receptors</p> <p>New and extension / expansion of established existing B1 (a) offices and (b) research and development, commercial / retail premises (A classes) and playing / recreation fields.</p> <p>Low Sensitivity Receptors</p> <p>New and extension / expansion of established existing low sensitivity receptors including industrial uses (B1(c), B2), storage and distribution (B8), farms, footpaths and roads</p>
5 to <10	<p>High Sensitivity Receptors</p> <p>New high sensitivity receptors including residential, hospitals, school / educational and tourist / cultural (C & D uses).</p>	<p>High Sensitivity Receptors</p> <p>Extension / expansion of established existing high sensitivity receptors including residential, hospitals, school / educational and tourist / cultural (C & D uses).</p> <p>Medium Sensitivity Receptors</p> <p>New and extension / expansion of established existing B1 (a) offices and (b) research and development, commercial / retail (A classes) premises and playing / recreation fields with acceptable odour mitigation at receptor e.g. no external seating areas, sealed external facades with building mechanical ventilation with odour abatement technology.</p>	<p>Low Sensitivity Receptors</p> <p>New and extension / expansion of established existing Low sensitivity receptors including industrial uses (B1(c), B2), storage and distribution (B8), farms, footpaths and roads.</p>
10 and above	<p>High Sensitivity Receptors</p> <p>New and extension / expansion of established existing high sensitivity receptors including residential, hospitals, school / educational and tourist / cultural (C & D uses).</p> <p>Medium Sensitivity Receptors</p> <p>New medium sensitivity receptors including B1(a) offices and (b) research and development, commercial / retail (A classes) premises and playing / recreation fields.</p>	<p>Medium Sensitivity Receptors</p> <p>Extension / expansion of established existing B1(a) offices and (b) research and development, commercial / retail premises (A classes) with proven and acceptable odour mitigation at receptor e.g. no external seating areas, sealed external facades with building mechanical ventilation with odour abatement technology.</p> <p>This could include the replacement of existing buildings with the same use.</p> <p>Low Sensitivity Receptors</p> <p>New and extension / expansion of established existing low sensitivity receptors including industrial uses (B1(c), B2), storage and</p>	-

Odour Exposure Contour (C98 1-hr, ouE/m^3)	Types of development / uses that are unlikely to be suitable even with mitigation	Types of development / uses that may be suitable	Types of development / uses that are likely to be suitable
		distribution (B8), farms, footpaths and roads. Consideration may need to be given to possible mitigation.	

Table 2: Receptor sensitivity to odours - extracted from IAQM guidance

Receptor sensitivity	General principles
High	<p>Surrounding land where:</p> <ul style="list-style-type: none"> • 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. <p>Examples may include residential dwellings, hospitals, schools/education and tourist/cultural.</p>
Medium	<p>Surrounding land where:</p> <ul style="list-style-type: none"> • Users would expect to enjoy a reasonable level of amenity, but would not reasonably expect to enjoy the same level of amenity as in their home; or • People would not reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. <p>Examples may include places of work, commercial/retail premises and playing/recreation fields.</p>
Low	<p>Surrounding land where:</p> <ul style="list-style-type: none"> • 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. <p>Examples may include industrial use, farms, footpaths and roads.</p>

5. Existing Baseline Conditions

The significant odour source in the vicinity of the Proposed Development is the CWRC. This has been assessed by Olfasense on behalf of the CCC¹. The contour plot from the CCC technical note, extracted from the modelled worst case year (2013) from the dispersion modelling in the Olfasense Addendum is provided below in Figure 2 to show the existing odour exposure levels.



Figure 2: Odour exposure contours around CWRC - extracted from the Technical Note produced by CCC

6. Evaluation of Predicted Impacts

In Figure 3, the modelled worst case year (2013) from the dispersion modelling in the Olfasense Addendum, repeated in the CCC technical note, are overlaid with the location of the Proposed Development along with the Outline Planning Areas. Although the $3 \text{ ou}_E/\text{m}^3$ contour covers the northern part of the Proposed Development, this area is proposed to be recreational fields and footpaths (medium to low sensitivity receptors), which would be suitable for this level of odour exposure following Table 1 and is therefore considered to be acceptable. Figure 3 also shows that the Outline Planning Areas considered are outside of the $3 \text{ ou}_E/\text{m}^3$ contour (exposed to less than $3 \text{ ou}_E/\text{m}^3$) and therefore, regardless of their proposed uses, are not constrained by odour, following Table 1.

Following the methodology set out in the CCC technical note, no significant odour impacts at the Proposed Development are predicted from the CWRC.

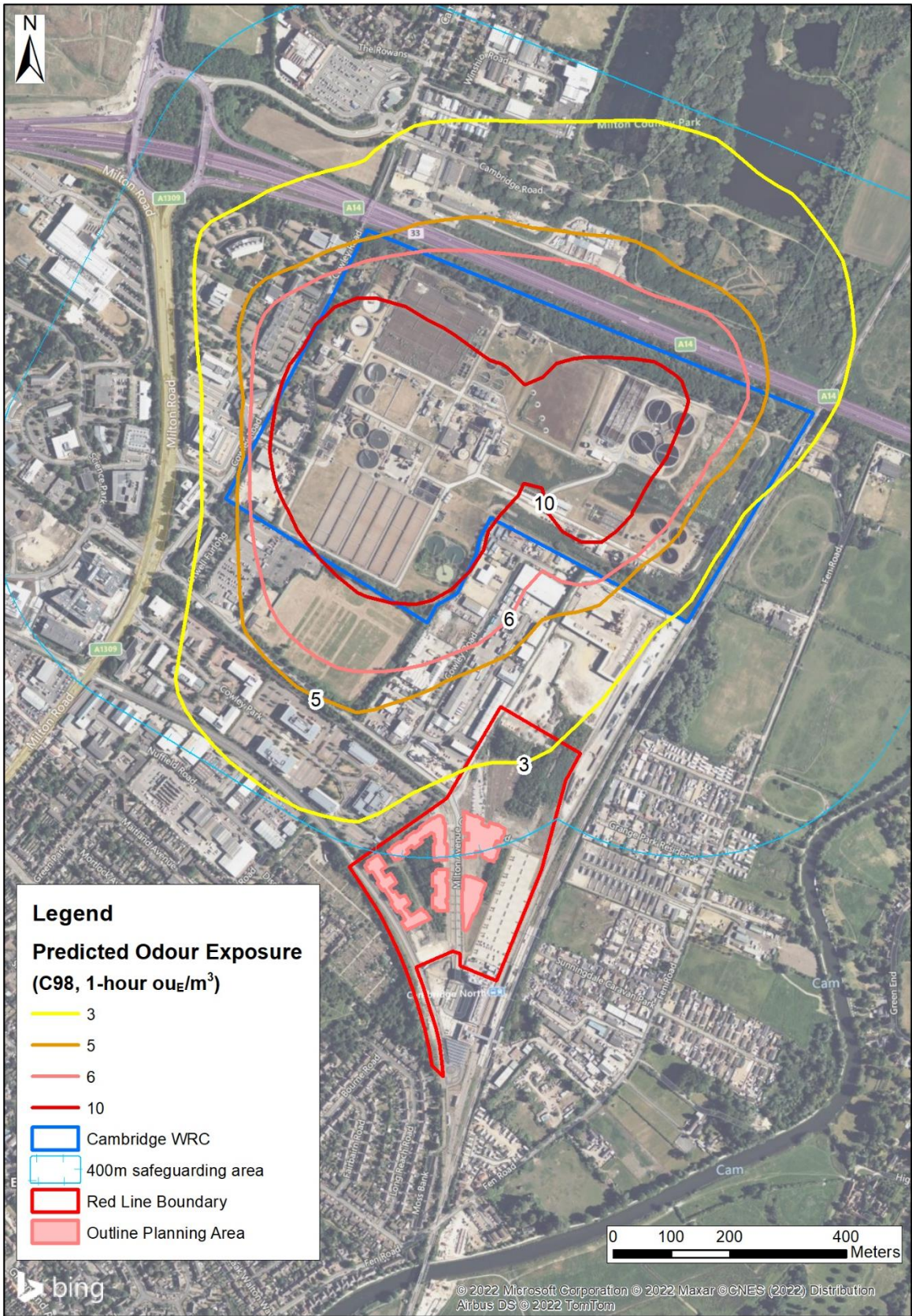


Figure 3: Olfasense CWRC worst case year odour contours in relation to the Proposed Development

7. Summary

Proposed plans have suitably located areas for development outside relevant odour exposure contours. The assessment using the methodology set out in the CCC technical note found no predicted significant odour impacts at the Proposed Development from the CWRC. Therefore, no odour mitigation is considered to be required and is not proposed.

Abbreviations/Glossary

Abbreviation	Description
CCC	Environmental Impact Assessment
CWRC	Cambridge City Council
EIA	Cambridge Water Recycling Centre
IAQM	Institute of Air Quality Management
C98 1-hour ou_E/m^3	Predicted 98 th percentile (C98) value of hourly average odour concentration units per cubic metre of air (C98 1-hour ou_E/m^3).