

AIR QUALITY TECHNICAL NOTE – Version 1

Post Submission Response to LA Comments – Application O/25/99506

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The following document provides a response to comments received from Eastleigh Borough Council (EBC) in response to the air quality assessment undertaken in support of *Planning Application O/25/99506 (Process No.: PR202507-110070) for Navigation Quarter, Land adjacent to Southampton airport Eastleigh, SO18 2NL* as set out within the Environmental Statement (ES) 'Air Quality Assessment, Chapter 7 and Annex B'.

The air quality assessment was undertaken to support the following proposals:

'Hybrid Application – Outline application for development of the land adjacent to Southampton Airport to provide employment floorspace of up to 92,000 sqm (GIA) within Use Classes E(g) (ii & iii), B2 and B8 with ancillary offices and areas for service yards, car parking, landscaping, ancillary buildings and associated activities, and access from Wide Lane (all matters reserved except for access). Full planning application for initial infrastructure works and construction of new access road including site leveling and other engineering works (EIA development).'

The comments received by EBC following review of the air quality assessment (AQA) are set out below accompanied by a response and, where required, additional information, to support the air quality assessment.

The air quality section provides a detailed and largely comprehensive assessment of the potential impacts of the proposed development during both construction and operational phases. It is broadly equivalent to a full planning stage air quality assessment, although certain site specific assumptions remain. The assessment considers both human and ecological receptors and aligns with IAQM and DMRB best practice. It references relevant national guidance and uses the latest version of the dispersion modelling (ADMS Roads).

It appears that the assessment used v8.1 of the NOx to NO2 calculator. The most recent v9.1 (available Aug 2024), however, in this case, we would not require revision, assuming the use of the previous version would provide more conservative calculations.

A review of the AQA confirms that v8.1 of the NOx to NO2 calculator was used. However, further assessment has been carried out using v9.1 of the NOx to NO2 calculator. The outcome of the revised calculations results in lower NO2 concentrations being predicted at all receptor locations and a lower change in annual mean NO2 concentrations due to the operational development. The results set out in Chapter 7 and Annex B of the ES therefore represent a worst-case prediction of potential impacts on local NO2 concentrations.

Please see areas for improvement and technical observations that need to be addressed following the review. The assessment to be updated accordingly before it can be taken to the next stage.

- 1. It is not clear what nearby developments are included in the assessment to conclude on cumulative impacts.***

A review carried out by the transport consultants (Steer Consulting) confirmed that traffic flows for other neighbouring developments were already included in Temprow growth factors which were applied to the base traffic data to obtain future year base traffic flows.

2. The report notes potential use of ADMS Extra for energy plant emissions but lacks such results. Confirmation is needed.

ADMS Extra is referenced in Appendix 7.1 Scope/Methodology in the event that the scheme includes for large scale gas fired or biomass energy plant however, the scheme will make use of low-emissions building design and energy provision, as discussed in paragraph 7.184. There will be no centralised gas fired energy plant, CHP or biomass boilers provided within the site and therefore the need for detailed modeling of energy plant emissions using the ADMS Extra model was not required.

3. It appears some tables contain duplicate rows (e.g. same receptor/habitat with identical values). Consolidation to avoid confusion is advisable.

A review of the tables has not shown duplication of any receptors, unless this is referring to data in Tables 7.4.4 and 7.4.5 where predicted NH₃ concentrations are the same at a number of receptors and under each scenario. This is due to there being little contribution to baseline concentrations due to traffic related emissions and therefore no noticeable or measurable change in concentrations due to changing distance from emission source and changes in overall traffic emissions. The data in these tables is correct and therefore we consider it does not need amending.

4. Table 7.2.2 omits speed for Wide Lane, despite its link to AQMA 1, without providing a rationale for such a decision.

There is some confusion here based on how the data is presented. No speed data has been included for Wide Lane or Mitchell Way because the two links were not included in the modelling assessment due to the lack of sensitive receptors adjacent to either road link. However, the traffic data was included in the table for completeness.

5. In the cumulative effects paragraph, the report incorrectly refers to Chapter 9 ecology and the HRA, this should be Chapter 10.

This does not detract from the outcome of the assessment.

6. Paragraphs 7.48 and 7.93 could benefit from additional review.

Paragraph 7.48 reads 'Table 7.7 outlines the sensitivity of the area to ecological impacts' this should refer to Table 7.9 and Table 7.7 Construction Dust – Sensitivity of the Areas to Ecological Impacts is numbered incorrectly and should be Table 7.9.

This comment has also raised that paragraph 7.49 should refer to Table 7.10 and Table 7.8:

Construction Dust – Magnitude of Emissions is numbered incorrectly and should be Table 7.10.

However, this does not detract from the outcome of the assessment, which remains unchanged.

Paragraph 7.93 reads 'As set out in Table 3.2, LAQM.TG(22) describes in detail typical locations where consideration should be given to pollutants defined in the Regulations. Generally, the guidance suggests that all locations 'where members of the public are regularly present' should be considered. At such locations, members of the public would be exposed to pollution over the time that they are present, and the most suitable averaging period of the pollutant needs to be used for assessment purposes'. This paragraph is correct and no changes would be made on review.

7. Table 2.2 refers to Oana White, where as paragraph 7.5 refers to Oaan Waite. Please use the correct name.

There is a typo in Table 2.2. However, this does not change the outcome of the assessment.

- 8. Several links in the main body of the statement could be improved, as there are discrepancies between the text and the corresponding footnotes. For example, the body references TG22 while the footnotes cite London Local Air Quality Management (LLAQM) Technical Guidance 2019 (LLAQM.TG(2019), GLA 2019, p.34. refs 4&5**

A review of the ES chapter confirms that this footnote is incorrect and should read Defra, Local Air Quality Management Technical Guidance 2022 (LAQM.TG(22)).

However, this is the only incorrect footnote within the chapter and it does not change the outcome of the air quality assessment.

For human receptors, predicted changes in NO₂, PM₁₀ and PM_{2.5} concentrations are negligible, with no significant impacts on air quality objectives. However, Figure 7.3.2 refers to human health receptors but overlooks residential receptors on Campbell Road, which are within 100 m of the boundary. These should be included, especially to understand the construction dust impacts.

It is correct that the receptors on Campbell Road are within 100 m of the Site boundary, however, as stated within the Figure Title (Figure 7.3.2: Human Receptors used in ADMS Model) this figure shows the receptors used in the ADMS dispersion modelling for the assessment of operational traffic impacts and therefore would not include receptors on Campbell Road, which are not included in the modelling exercise. The construction dust assessment takes account of sensitive human receptors within 250m of the site boundary which includes receptors on Campbell Road which are within 100 to 250m of the site boundary. These receptors and the risk of significant effects are captured in Table 7.15 of the ES chapter.

R2, R3 and R4 receptors located along Southampton Road for PM_{2.5} and PM₁₀, appear to have been assessed only for the operational phase rather than for construction. In my view, these receptors, together with those on Campbell Road, are likely to experience the greatest dust impacts during construction and cause concern from the public.

Receptors R2, R3 and R4 are within 100-200m of the site boundary (site access road) and have been included in the construction impact assessment as accounted for within the number of receptors identified up to 100m and up to 250m in Table 7.15 of the ES chapter. See also response above.