

3rd August 2018

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Dear Claire,

2018/2179/P 18-22 Haverstock Hill Development - Response to Camden Council Comments on Air Quality Assessment

Further to your email of 23rd July I am pleased to provide response to the comments raised by Camden Council Air Quality officer on the Haverstock Hill Air Quality Assessment Report (Our report reference 11296).

Our response is provided below, with each of the Council Officer's comments addressed in turn.

Response on Impacts on Occupants

In relation to methodology, the London Councils Planning and Air Quality Guidance is no mentioned, which along with the TG16 should be referred to for the assessment.

It is acknowledged that the report does not reference the London Council's Planning and Air Quality Guidance (2006), however the assessment has been undertaken with reference to more recent technical guidance and non-statutory guidance (IAQM), and is therefore considered to be compliant with industry good practice.

Given the car-free development, please clarify why the methodology includes development-generated traffic. E.g. is this LCV service trips?

The proposed development does not include for car parking provision, however, as identified, the retail units and residential properties will be subject to service deliveries. The total estimated development generated flow is 12.5 vehicles a day on average. The number of predicted development generated traffic movements is below thresholds in relevant (IAQM) technical guidance.

Please confirm how the following were scoped out:

- o construction road traffic emissions and*
- o boiler emissions.*

Construction road traffic is considered at Section 3.3 of the report. Projected traffic movements during the construction phase were deemed to be below the relevant threshold level reference in non-statutory technical guidance. Accordingly, it could be concluded that construction traffic movements were unlikely to have a significant adverse effects on local air quality and therefore no further assessment was deemed necessary.

The requirement to assess emissions from domestic heating was considered as part of the two-stage IAQM screening assessment (see para 3.3.6 onward in report and Appendix B). IAQM Air Quality Planning Guidance provides reference to the requirement to consider emissions from combustion plant associated with a development. For low emission plant (defined as a NO_x emission limit of <5 mg/s or emission limit of <40 mg/kWh) IAQM guidance states that these are unlikely to give rise to impacts provided adequate stack design is adopted.

The proposed boiler plant will be designed in accordance with Mayor of London Sustainable Design and Construction Supplementary Planning Guidance (SPG) and can therefore be deemed to be low emission and therefore unlikely to give rise to adverse impacts based on IAQM guidance. Accordingly further detailed assessment of emissions was not deemed necessary.

It appears that the vehicle emissions from the proposed development are not included in the AQ assessment. Please rectify.

As discussed above, the number of vehicle movements projected as a consequence of the development is minimal, and below screening threshold levels. Addition or removal of such a small number of vehicle movements (<1 per hour) will not affect the modelling results.

Model only uses traffic flows for 2018, not the completion year: please use the future year traffic projection, as flows are likely to be higher then.

It is acknowledged that traffic flows can be expected to grow in future years, however equally the emission performance of cars would also be expected to improve over the same period, and improvements in the prevailing background concentrations can also be expected. It is our experience that predictions of future baseline levels, accounting for improvements in vehicle emissions and improving background levels, are likely to be lower than that predicted for the baseline (2018) year. Accordingly, it is considered that the 2018 scenario provides a suitable assessment scenario.

Please confirm that 8.0 (2VC) was the most recent available EFT version (current version is 8.0.1 according to Defra).

The modelling study considered the EFT emissions database version 8.0 (2VC) the most recent database within ADMS Roads, which is equivalent to EFT version 8.0.1 released in December 2017.

Section 3.4.10: As above, please model to 2020 traffic flows i.e. when the development is expected to be completed.

Please see comment above.

Please confirm the reason why 2016 Heathrow MET data was selected. AQAs should ideally use 3 years of MET data.

At the time of the assessment, the most recent year of validated air quality monitoring data available for consideration in the study was 2016 data. The meteorological data used in the modelling assessment was therefore selected for 2016 data for consistency and to allow comparison of predicted levels with measured pollutant concentrations (although no model verification was possible).

Whilst it is recognised that inter-annual variation in pollutant concentrations due to, amongst other reasons, meteorological conditions, can occur the effect on road traffic emissions is generally low. The screening assessment undertaken to inform the scope of assessment determined that baseline

assessment only was required, therefore it was considered that a single meteorological year scenario was appropriate with no future assessment requirement.

The 2018 background NO₂ figure seems low. The Defra background concentration for NO₂ (2015) in this grid square appears to be 33.06 rather than the 28.9 cited – please clarify. In any case on the conservative principle, we would prefer the applicant to apply the most recent (valid data year) figures from the nearest background automatic monitoring station (thought to be Bloomsbury), unless this figure is lower than the Defra figure.

We have re-verified the background concentration from Defra Background mapping and can confirm the reported background NO₂ concentration for 2018 as 28.9 µg/m³. Data was accessed from <https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2015> with year of data set to 2018.

The measured annual average NO₂ concentration at the Bloomsbury urban background monitoring station in 2017 was 38 µg/m³.

It is considered that the Bloomsbury monitoring station, whilst an urban background location, is located in an area with higher traffic density and therefore an area of expected poorer air quality. It is not considered that the Bloomsbury site is representative of background conditions at Haverstock Hill.

The model has not been verified as they say there are no monitoring sites nearby. There are two Camden diffusion tubes within 2 km (Camden Road and Kentish Town Road) and Swiss Cottage automatic monitoring station is approximately 4km away: <https://opendata.camden.gov.uk/stories/s/bmrm-k7pv>. Please comment.

No model verification of the model was possible, as there were no monitoring locations within the model *study area*, i.e. within the modelled domain for which we had appropriate road traffic flow data and were therefore able to produce predictions of the road traffic contribution to ambient air quality.

As detailed in the report (Section 3.8) in the absence of the ability to verify the modelling predictions with local monitoring data we applied a conservative adjustment factor of 2 to the model predictions. It is considered that this approach provides confidence in the veracity of the modelling predictions. The resulting predicted NO₂ concentrations are in line with the levels that would be expected in such an area (i.e. elevated annual mean NO₂ concentrations close to, but below, the NAQS objective level), providing further confidence in the modelling approach and conclusions.

Section 4.2.1: Diffusion tube monitoring. Resident diffusion tube results should not be referred to as they do not meet data quality thresholds.

Noted

Has the junction been accounted for in the modelling?

The modelling study accounted for the effect of the junction in the assumed reduction in average speed both approaching and leaving the junction. No significant queueing traffic was, however considered, within the modelling study.

Vehicle emissions are key, so on top of ensuring they have the correct vehicle count figure for 2020, please confirm what data year is used for vehicle emissions. As a minimum, vehicle emissions should be at base year and should not predict improvements to future years; as a conservative (preferred) approach, 2015 emission rates should be applied.

The model study applied 2018 emissions factors, consistent with the year of assessment. It is acknowledged that application of 2015 emissions factors to the study will be more conservative, however the study includes a number of conservatisms in its assumptions and assessment (including application of conservative model adjustment factor). Whilst a conservative approach should be adopted in any assessment, care should be taken that the compound effect of a number of conservatisms does not lead to an unrealistic, or overly pessimistic conclusion.

Overall, the assessment is considered to provide a realistic, but conservative outcome.

Response on Construction Impacts

The comments provided by the council are noted. A Construction Environmental Management Plan (CEMP) will be developed in line with relevant technical guidance, and will include site specific emissions and dust control, monitoring proposals and specification of emission standards for required plant and equipment.

Closing

Overall, it is considered that the air quality impact assessment conclusions, that the development proposals will not result in adverse exposure to new receptors, nor will the proposed development result in adverse impacts during construction or post-development with the adoption of industry good practice mitigation and controls.

We will be pleased to further discuss the approach and findings of the air quality assessment, as necessary.

Yours sincerely



Stuart McGowan

Associate Director