

Technical Note responding to points raised at Case Conference held on 8th February 2018 in respect of air quality.

ACCON UK Limited (ACCON) have been commissioned by Brighton & Hove Council to provide assistance with respect to the air quality impacts of a proposed residential development at Ovingdean. A number of points were raised at the recent case conference and accordingly we have carried out specific air quality modelling and assessment in order to provide advice to the client team.

Specific points raised are addressed below.

Previous Inspector decision in respect of BH2014/02589

This decision related to the Appeal Site with almost twice the number of properties now proposed.

The Framework advises that planning decisions should ensure that any new development in AQMA's is consistent with the local air quality action plan and, in this regard, I note references made to the Brighton and Hove City Council Air Quality Action Plan.

In refusing planning permission, the Council considered it was unable to fully assess the likely impacts upon air quality with regard to the Rottingdean AQMA which lies some 1.45 km to the south of the application site.

The Guidance advises that it is important that the potential impact of new development on air quality is taken into account where the national assessment indicates that relevant limits have been exceeded or are near the limit. Mitigation options, where necessary, will be locationally specific, will depend on the proposed development, and should be proportionate to the likely impact. Appeal Decision APP/Q1445/W/15/3130514

In response, the appellant submitted a further Air Quality Assessment report dated December 2015 and, following discussions with the Council, additional sensitivity testing was undertaken and with reference to the Environmental Protection UK and the Institute of Air Quality Management guidelines, Land-Use Planning & Development Control: Planning For Air Quality (the EPUK and IAQM Guidance). The results of that work show a negligible impact arising from the development with regard to absolute and relative changes in Nitrogen Dioxide concentrations within the AQMA as a consequence of the development. This assessment is accepted by the Council and, accordingly, the authority is now satisfied that the scheme would not be harmful to local air quality.

A range of concerns have been raised by third parties, however, including details relating to the methodology of the assessment, to underlying traffic data, and to the relevance of local physical characteristics, such as the local road pattern and attendant features, and these were identified at the hearing. The appellant's methodology has been broadly explained, and no objections are raised by the Council. The assessment follows national guidelines and the most up-to-date Defra toolkit, and reflects the cumulative effects of other development within Brighton and Hove City. The Council also accepts existing traffic data for Rottingdean High Street as a basis for the assessment, and data for additional daily trip generation into the AQMA. I have also had regard

to recent decisions and actions relating to the UK's non-compliance with the Ambient Air Quality Directive 2008/50/EC.

The development would be accompanied by a range of mitigation, which would include various measures to promote sustainable transport and to reduce private vehicle trips. The section 106 agreement includes in Schedule 4 significant measures to promote sustainable transport in connection with occupation of the development, including financial contributions for purchases of bicycles, provision of temporary bus season tickets, promotion of a car club, and provision of general information relating to local public transport, walking and cycling. The section 106 agreement also includes a walkways agreement to safeguard public pedestrian access to and through the site. Should the development be acceptable, planning conditions may also be considered in relation to cycle parking and other matters.

Summary

I therefore conclude that the proposed development would not be harmful to air quality. Accordingly, the scheme would not be contrary to Policy SU9, or to the expectations of the Framework. Policy SU9 states, amongst other matters, that development liable to cause air pollution will only be permitted where human health and related matters are not put at risk, where it does not reduce the authority's ability to meet relevant air quality targets, and where it does not negatively impact upon the existing pollution situation. It also refers to development within an air quality management hotspot, although the appeal site actually lies outside the AQMA. I have also had regard to county guidance set out in the Air Quality and Emissions Mitigation Guidance for Sussex Authorities 2013 which seeks to ensure that the air quality in AQMA's is not worsened and which recommends that planning permission be refused if, after mitigation, high to very high air quality impacts remain.

High Court Decision in Respect of Gladman Developments Limited (October 2017) within Swale Borough Council

This is an important decision as it deals with the weight to be applied to exceedances of the Air Quality Limit Values and whether mitigation can be taken into account when the effects of such mitigation are not capable of being quantified.

The Inspector at the appeal dealt with issue 8 at DL90-106. The High Court Appeal only dealt with Air Quality (the eighth issue) defined as "The effect of the appeal proposals, including any proposed mitigation measures, on air quality, particularly in the Newington and Rainham Air Quality Management Areas" within the Appeals (Refs: APP/V2255/W/15/3067553 and Ref: APP/V2255/W/16/3148140

The grounds and responses of the High Court are summarised below:

Ground 1(a)

The Claimant contends that the Inspector failed to apply the outcome of Client Earth (No.2) in his understanding of the effectiveness of air quality action plans.

Response

I consider that the Inspector properly engaged with the Client Earth (No.2) decision. He understood what the judgment required, and carefully analysed the evidence that was presented before him (DL99-106). He formed a judgment as to what the air quality is likely to be in the future on the basis of that evidence. He was entitled to consider the evidence and not simply assume that the UK will soon become compliant with the Directive.

Ground 1(b)

Mr Kimblin submits that the Inspector failed to give effect to the principle that the planning system presumes that other schemes of regulatory control are legally effective.

Response

I reject this submission. Paragraph 122 is clear. I agree with Mr Moules that the principle referred to in paragraph 122 concerns situations where a polluting process is subject to regulatory control under another regulatory scheme in addition to the planning system. It is directed at a situation where there is a parallel system of control, such as HM's Inspectorate of Pollution in Gateshead MBC, or the licensing or permitting regime for nuclear power stations in *R (An Taisce) v Secretary of State for Energy and Climate Change* [2013] EWHC 4161 (Admin). The point being that the planning system should not duplicate those other regulatory controls, but should instead generally assume that they will operate effectively. The Directive is not a parallel consenting regime to which paragraph 122 is directed. There is no separate licensing or permitting decision that will address the specific air quality impacts of the Claimant's proposed development.

Ground 1(c)

The Claimant contends that the Inspector failed to explain why application of the DEFRA damage cost analysis and associated contribution was not likely to be effective.

Response

I consider that at DL104-106 the Inspector reached a conclusion that on the evidence he was entitled to reach and that he explained what was wrong with the mitigation. The contributions had not been shown to translate into actual measures likely to reduce the use of private petrol and diesel vehicles and hence reduce the forecast NO₂ emissions (DL104).

Ground 1(d) and Ground 1(e)

The Claimant contends that the Inspector was obliged to consider whether the issue which concerned him in relation to mitigation could be overcome by the imposition of a Grampian condition (Ground 1(d)); and that he failed to give the Claimant an opportunity to address the matter at the Inquiry or prior to issuing the appeal decision (Ground 1(e)).

The Claimant never suggested it would agree to be bound by a Grampian or any such condition. Nevertheless, Mr Kimblin submits that a condition which required the submission of a scheme of mitigation measures could have been drafted and imposed in a manner which precluded development until the planning authority accepted that the scheme would address the air quality impacts. That, he submits, would have been a reasonable condition (see *British Railways Board v Secretary of State for the Environment* [1993] 3 PLR 125, per Lord Keith at 128 & 132; NPPG on Grampian Conditions; and witness statement dated 22 February 2017 of Mr John McKenzie, the Claimant's planning director, at para 5). It is irrelevant, Mr Kimblin submits, that such a condition was not canvassed by any party before the Inspector.

Response

I am satisfied from the evidence to which I have referred that the Claimant knew the case which it had to meet and had an opportunity to adduce evidence and make submissions in relation to mitigation measures (which included suggesting a *Grampian* condition if he had wished to do so). I consider that the principle of fairness was satisfied in this case.

Ground 2

The Claimant contends that the Inspector erred in failing to explain how the proposal is in conflict with the air quality action plan, read as a whole. It is the Claimant's case that its proposed mitigation measures were consistent with the local action plan, and that the Inspector ought to have explained where the inconsistency with the plan arose.

Response

The Inspector found that the proposed development would be likely to have an adverse effect on air quality, particularly in the AQMAs. That being so, I agree with Mr Moules that it is obvious why the Inspector concluded that the proposed development was inconsistent with the local air quality action plans that sought to ensure development did not harm air quality. The decision letter read as a whole makes it clear to the parties (*Bloor Homes East Midlands Ltd v Secretary of State for Communities and Local Government* [2014] EWHC 754 (Admin) at paragraph 19, per Lindblom J (as he then was)) that the inspector followed national policy, found there to be a breach of the air quality action plans, and accordingly concluded that both proposals would conflict with the guidance in NPPF paragraph 124.

Ground 3

The Claimant contends that the Inspector failed to have regard to the fact that the emerging development plan contained an allocation for 115 dwellings in Newington within the AQMA.

Response

I reject these submissions. First, it is clear that the Inspector did deal with the emerging plan (DL21-22) and he considered that little weight should be given to it. He noted that over 400 main modifications to the emerging local plan (“ELP”) had been published for consultation in response to the Inspector’s Interim Findings, and that some 2,220 representations had been made on the main modifications that will need to be considered by the Inspector (DL22). Further hearings were held before the Inspector completed her report and recommendations. In those circumstances the Inspector was entitled to conclude, as he did, that “substantial uncertainty remains about exactly which site allocations will appear in the adopted ELP and at what scale” (DL22).

Second, whilst emerging Policy AX6 proposes an allocation of 115 dwellings in Newington, it provides that the development must “Address air quality impacts arising in the Newington AQMA, including the implementation of innovative mitigation measures” (Main Modification 161, para 5). New development must thus be judged on its merits according to its air quality impacts. I consider that is what the Inspector did in relation to the Claimant’s proposal.

For the reasons I have given none of these grounds of claim succeed. Accordingly, this claim is dismissed.

Diffusion tube monitoring trends within the AQMA

It is useful to examine the long-term trends of measured NO₂ values at each diffusion tube within the Rottingdean AQMA.

Ref	Location	2009	2010	2011	2012	2013	2014	2015	2016	2017*
E21	Vicarage Lane	41.5	47.6	40.9	38.4	36.5	28.6	26.4	27.5	n/a
E22	High Street (east side)	46.0	48.5	44.0	42.5	44.5	39.7	31.6	39.1	41.3
E23	High Street (west side)		53.7	48.4	46.2	47.0	41.3	37.7	38.4	37.3
E24	Marine Drive Rottingdean								34.9	32.2

*the 2017 data (which is preliminary) does not include the December 2017, as the diffusion tubes have not yet been analysed, or the anomalous data which was recorded in July and August of 2017. Additionally, as a result of this a bias factor from 2016 has also been applied to this data, as the 2017 bias adjustment factor is not yet available.

The highest monitored concentrations of NO₂ are at E22 and E23 which are located on the façades of buildings less than 1 metre from the kerb of Rottingdean High Street. Both these diffusion tubes recorded exceedances of the air quality objective (AQO) consistently until 2013. Since 2013 the overall trend shows significant improvement of measured NO₂ values. In both 2015 and 2016 the NO₂ values were below the AQO (although close at E22 and E23 in 2016). An

additional diffusion tube E24 situated at Marine Drive, within the AQMA, shows a non-exceedance value of $34.9\mu\text{g}/\text{m}^3$ for 2016. The 2017 data (although not complete) shows an increase in NO_2 pollutant concentrations at E22, which is above the AQO, but a slight reduction at both E23 and E24.

In practice, what this means is that whilst there has been a general downward trend in NO_2 pollutant concentrations within the AQMA that trend cannot be relied upon in all cases such that from 2015 to 2016 there was an increase in pollutant concentrations and an exceedance of the AQLV in 2017.

Implementation of site specific mitigation measures

The EPUK/IAQM guidance advises that good design and best practice measures should be considered, whether or not more specific mitigation is required. The Air Quality Consultants Report (Ref: J2438/2/F1), dated 30/09/2016) states that the proposed development will incorporate the following good design and best practice measures:

- setting back of the development buildings from roads by at least 5 m;
- provision of a detailed travel plan, to be produced during the application timetable, or secured via S106, setting out measures to encourage sustainable means of transport (public, cycling and walking) via subsidised or free-ticketing, improved links to bus stops, improved infrastructure and layouts to improve accessibility and safety;
- provision of pedestrian and cycle access to the new development, including cycle parking;
- no provision of appliances for solid or liquid fuel burning; and
- Installation of ultra-low NO_x boilers only, with emission rates below $32\text{mg}/\text{kWh}$.

Dispersion modelling to consider November 2017 DEFRA revised emission factors and background pollutant concentrations

ACCON have carried out dispersion modelling for the proposed development to take into account the updated emission factors and background pollutant concentration maps which were produced by DEFRA in November 2017.

The dispersion modelling has concentrated on the impact of the development on the Rottingdean AQMA. The most recent Emissions Factor Toolkit (EFT, version 8.0, November 2017) issued by DEFRA was used to derive emissions factors (in grams per kilometre) for vehicle movement along roads incorporated into the model. This version of the EFT includes updates to COPERT NO_x and PM_{10} emissions factors for road traffic which are taken from the European Environment Agency EEA COPERT 5 emissions calculation tool, including new EURO 6 subcategories.

There have also been updates to the vehicle fleet and age information. Version 8.0 was produced by DEFRA in response to changes in 'real world' vehicle emissions. As such, it has been assumed that the EFT produces reliable emission factors which are suitable for dispersion modelling as it

is the most up-to-date tool provided by DEFRA. A comparison is provided between ACCON’s dispersion modelling and that produced by AQC (the applicants air quality consultants).

Table 1: Ovingdean 2019 Without Development Site

Site	ACCON Total NO ₂	AQC Total NO ₂
R1	17.7	24.3
R10	16.6	25.0
R25	23.8	25.9
R30	25.4	23.4
R40	23.5	25.2
R50	31.4	30.4
R60	36.2	33.6
R67	26.0	21.9
R68	22.7	19.4
R69	20.5	20.4
R70	18.5	19.9

Table 2: Ovingdean 2019 with Development Site

Site	ACCON Total NO ₂	AQC Total NO ₂
R1	17.7	24.4
R10	16.6	25.0
R25	23.8	26.0
R30	25.4	23.4
R40	23.5	25.2
R50	31.5	30.4
R60	36.2	33.6
R67	26.0	18.8
R68	22.7	20.2
R69	20.5	20.9
R70	18.5	20.3

Table 3: Ovingdean 2019 with Development Related Traffic Flows into the AQMA Reduced by 50%

Site	ACCON Total NO ₂
R1	17.7
R10	16.6
R25	23.8
R30	25.4
R40	23.5
R50	31.5
R60	36.2
R67	26.0
R68	22.7
R69	20.5
R70	18.5

As identified in **Tables 1, 2, and 3**, there is no discernible difference between the modelled NO₂ pollutant concentrations without the development in place, with the development in place and fully occupied, or with the development in place with half the proposed traffic entering the AQMA at Rottingdean High Street.