

Air Quality Topic Paper

July 2023



ADUR DISTRICT
COUNCIL

Contents

| | |
|---|----------|
| 1. Introduction | 3 |
| 2. National Planning Policy | 3 |
| 3. Sussex Air - Sussex Wide Guidance | 4 |
| 4. Shoreham Harbour Joint Area Action Plan | 5 |
| 5. The Implications of Greater Numbers / Higher density Development - Assessing the impact | 8 |

1. Introduction

- 1.1 This paper provides an overview of air quality issues in relation to the Western Harbour Arm allocation at Shoreham Harbour. It should be noted that air quality issues are strongly linked to transport matters (as most air pollution in the area is generated by vehicles).

2. National Planning Policy

- 2.1 National Planning policy and practice guidance address air quality issues.

- One of the twelve core planning principles notes that planning should ‘contribute to...reducing pollution’. To prevent unacceptable risks from air pollution, planning decisions should ensure that new development is appropriate for its location.
- The NPPF contains advice on when air quality should be a material consideration in development control decisions. Existing, and likely future, air quality should be taken into account, as well as the EU limit values or national objectives for pollutants, the presence of any Air Quality Management Area (AQMA) and the appropriateness of both the development for the site, and the site for the development.
- The NPPF states that the effects of pollution on health and the sensitivity of the area and the development should be taken into account.
- Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified. New developments in AQMAs should be consistent with local air quality action plans.
- Planning Practice Guidance sets out air quality considerations for planning. Legally binding limits for outdoor air major air pollutants are set out in the 2008 Ambient Air Quality Directive - these include particulate matter (PM10 and PM2.5) and nitrogen dioxide.

- 2.2 The Local Air Quality Management (LAQM) regime (derived from the Air Quality (England) Regulations 2000) requires local authorities to regularly review and assess air quality in their areas. Where objectives are not met or at risk of not being met, Air Quality Management Areas must be declared and an action plan prepared.

- 2.3 AQMAs must be taken into account in preparing development plans; matters to consider include:

- the observed trends shown by recent air quality monitoring data and the potential impact of proposed development and / or allocations;
- the potential cumulative impact of a number of smaller developments on air quality as well as the effect of more substantial developments, including their implications for vehicle emissions;
- ways in which new development could be made appropriate in locations where air quality is or is

likely to be a concern, and not give rise to unacceptable risks from pollution. This could, for example, entail identifying measures for offsetting the impact on air quality arising from new development including supporting measures in an air quality action plan or low emissions strategy where applicable; and

- opportunities to improve air quality or mitigate impacts, such as through traffic and travel management and green infrastructure provision and enhancement.

2.4 The Adur Local Plan 2017 addresses air quality in Policy 34 - Pollution and Contamination:

Development should not result in pollution or hazards which prejudice the health and safety of the local community and the environment, including nature conservation interests and the water environment. New development in Adur will be located in areas most suitable to the use of that development to avoid risks from noise, air, odour or light pollution. Mitigation measures will need to be implemented for developments that could increase levels of pollution or have a negative impact on drinking water supplies in Adur. Where there are significant levels of increased pollution that cannot be mitigated, development will be refused. Where appropriate, air quality assessments and/or noise assessments will be required in conjunction with development proposals. ..

3. Sussex Air - Sussex Wide Guidance

3.1 Sussex Air is a partnership of local authority officers.

3.2 The group has produced Air Quality and Emissions Guidance for West Sussex (2021) <https://sussex-air.net/wp-content/uploads/2022/09/Sussex-AQ-Guidance-V.1.2-2021.pdf>

This guidance:

1. attempts to provide some clarity to how authorities intend interpreting relevant Local Plan policies.
2. provides advice for developers and their consultants on how to assess and mitigate the impact that new developments may have on local air quality.
3. detail a consistent approach by developers and Local Planning Authorities (LPAs) to:
 - address impacts on local air quality
 - ensure optimum scheme design to reduce emissions and/or exposure and
 - avoid unnecessary delays in the planning process.

3.3 It also provides an 'emissions calculator' which can be used to estimate transport emission from a particular development, and corresponding mitigation.

The Sussex Air Website also has a map showing the locations of nitrogen dioxide diffusion tubes for monitoring:

<https://sussex-air.net/air-quality-near-me/no2-diffusion-tube-map/>

4. Shoreham Harbour Joint Area Action Plan

- 4.1 There are two Air Quality Management Areas (AQMA) that are partly within the JAAP regeneration area. The Brighton & Hove and Portslade AQMA in the east, the Shoreham AQMA in the west. The latter is the most relevant to this review. These AQMA have been designated due to the high level of pollutants from road vehicle emissions. Each AQMA has an Air Quality Action Plan which sets out how this is managed.
- 4.2 At the time of writing there is also an AQMA in Southwick on the A270 between Kingston Lane and Southview Close (although outside the regeneration area). However, due to consistently reduced levels of monitored Nitrogen Dioxide this AQMA is likely to be revoked shortly.
- 4.3 Objective 5 of the JAAP includes the following:
- Transport improvements will be required to support the JAAP proposals and reduce the impact of existing and future traffic congestion and related air quality and noise impacts, in particular the impacts on the two Air Quality Management Areas (AQMA). Measures that reduce reliance on the private car and improve sustainable transport choices will be promoted.
 - Air Quality Action Plans (AQAPs) will continue to play a key role in helping to manage issues of localised air pollution in accordance with most recent guidance.

Character Area 7 – Western Harbour Arm:

- To ensure that new development proposals mitigate noise and air quality impacts.
- 4.4 Policy CA7 which specifically relates to the Western Harbour Arm states:
- Developments should be set back sufficiently from the A259 corridor in agreement with the highways and planning authorities, to provide space for a high-quality segregated cycle route which provides stepped separation from road vehicles and pedestrian facilities, to deliver green infrastructure improvements, and to prevent a canyoning effect to ensure that residents are protected from noise and air quality impacts.*
- 4.5 As an example, air movement was a factor in guiding the design of Kingston Wharf as a series of separate blocks rather than one continuous development. Similarly, at Free Wharf, development was ‘staggered’ to regulate air movement. Both these examples show how layout can address air penetration and help dispel build-up of potential pollutants.
- 4.6 The JAAP Monitoring Framework includes a target to improve air quality, especially within Air Quality Management Areas. Indicators to assess this include:
- 40. Number of planning permissions granted contrary to officer advice where impact on air quality was an important factor

- 41. Air quality monitoring (including CO₂, NO₂ and particulate concentrations).
- 42. Number and extent of Air Quality Management Areas identified in the vicinity of the Shoreham Harbour Regeneration Area.

As mentioned elsewhere, of the four developments granted consent in the Western Harbour Arm Regeneration Area, only Kingston Wharf has been granted consent since the adoption of the Joint Area Action Plan. However the table below sets out how each development has had regard to the issue.

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| AWDM/0501/12 Mariner's Point (Parcelforce) |
| AQ consultants assessment: The new residential properties will also be subject to the impact of road traffic emissions from the adjacent road network and this has also been assessed. The main air pollutants of concern related to traffic emissions are nitrogen dioxide and fine particulate matter (PM ₁₀ and PM _{2.5}). |
| Report to the Planning Committee (03/06/13): As outlined in the Report, the submitted development proposal concludes that 'impacts on air quality (NO ₂ and PM ₁₀) from the development for the predicted year (2017) will be negligible'. Whilst predicted concentrations may be 'negligible,' concentrations are nevertheless predicted to increase at all the receptors modelled, albeit by a very small amount. Any development here will increase traffic over current levels in and around the development (and AQMA) and therefore result in an increase in traffic related pollutants, however small these may be predicted to be. |
| Mitigation secured via S106: £4,500 Air quality monitoring over 5 years (received November 2020) Also various contributions to active travel, plus travel plan and EV charging points |

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| AWDM/1625/16 63-67 Brighton Road Humphreys Gap |
| AQ impact assessment and mitigations assessment requested by ADC Env Health team using air quality and emissions guidance for Sussex |
| Officers Report: The impacts of local sources (predominantly local traffic) on the air quality for future occupants of the development have been shown to be acceptable, with concentrations below the relevant air quality objectives. |

Overall, the construction and operational air quality effects of the development are judged to be 'not significant'.

Mitigation:

No s106 agreement, air quality assessment included as planning condition

Also delivers secure cycle parking and green courtyard

AWDM/1497/17 Free Wharf

Officers Report - Report to the Planning Committee (22/01/18):

Environmental Health (Air Quality) initial response requested further information and suggested that other developments anticipated within Shoreham should be included in the Air Quality Assessment related to this development as they are reasonably foreseeable. Following further information and clarification from the applicant the Environmental Health Officer have concluded that the proposed development would have an adverse effect on the Shoreham Town Centre Air Quality Management Area. As a result of this mitigation is required to the value of £138,802.03 in addition to existing committed actions from the developer including electric vehicle charging points. This contribution will be secured through the S106 agreement.

S106:

£138,802 Air quality monitoring and mitigation to pay 50% prior to Occupation and the remaining 50% prior to occupation of more than 50% of dwellings on the development

AWDM/0204/20 Kingston Wharf

The proposal is supported by an Air Quality Assessment which notes that the application is 1km from the Shoreham Air Quality Management Area (AQMA) and at Old Shoreham Road, Southwick. The assessment demonstrates that, subject to appropriate mitigation measures being imposed, the proposal would not have a significant impact on air quality during the construction and post occupation/operational phase. It also observes that air pollutant concentrations at the proposed development would be below the relevant air quality objectives and that the site is suitable for its proposed uses.

The Council's Environmental Health Officer has considered the proposal and supporting assessments and raises no objection subject to £88,280 being secured towards local air quality mitigation measures in

accordance with the Sussex Air Quality Mitigation Guidance on which the assessment is based. The previously mentioned construction management plan (CEMP) includes a dust management strategy and measures to limit emissions may be added, (such as from idling construction plant when not in use). The provision of EV charging also contributes to provision for cleaner future transport.

Air quality contributions towards monitoring and mitigation measures:

- Commercial - £19,421.60 (minus the cost of onsite mitigation measures)
- Residential £68,858.40 (minus cost of onsite mitigation) towards monitoring and mitigation measures in the Shoreham Town Centre AQMA and/or Brighton Road.
- Commercial Air Quality Mitigation Plan Prior to Occupation of the Commercial Floorspace; Residential Air Quality Mitigation Plan Prior to Occupation of the Dwellings; Up to £19,421.60 - each payment to be made prior to occupation, paid in two stages; 50% on first occupation; 50% on 50% occupation.

5.The Implications of Greater Numbers/ Higher Density Development - Assessing the impact.

- 5.1 As discussed elsewhere, the review of the Western Harbour Arm has been set up to review and analyse developments granted permission within the Western Harbour Arm so far (with the proviso that only Kingston Wharf has been granted consent since the JAAP was adopted) and to consider the impacts of potential future levels of development.
- 5.2 To ensure consistency four scenarios have been developed based on varying densities, and using site areas of those parts of the Western Harbour Arm allocations which have not yet come forward for development.
- 5.3 In terms of air quality these development scenarios can be used to make assumptions about emissions generated by each particular scale of development, and calculate and assess the impacts on air quality, particularly with regards to impacts on the AQMA.
- 5.4 As a result of internal discussions between planning officers and Environmental Health colleagues as part of this review, it is proposed that air quality modelling work is commissioned to ensure this assessment is undertaken by specialist air quality consultants. This will provide up-to-date information on likely future levels of Nitrogen Dioxide and Particulates (PM10 and PM2.5) to consider whether a limit can or needs to be placed on future development at the WHA in terms of air quality matters, as well as providing up-to-date

information for the assessment of planning applications which come forward in the vicinity of the Western Harbour Arm (or wider Adur Local Plan area).

- 5.5 As mentioned in the introduction, there is a close relationship between transport and air quality matters due to the emissions generated by vehicles. As such, it is proposed that air quality consultants use identical scenarios as used by transport consultants undertaking work for the Adur Local Plan review (including Adur wider than the WHA). This means that both studies have a consistent base for assessment; also that data collected by transport consultants can be shared with air quality consultants for expediency and consistency. It will also provide air quality assessments for the Adur Local Plan update.
- 5.6 As such, at the time of writing, this paper is not able to predict the impact of future levels of development at the Western Harbour Arm. However this review process has built on joint working between Planning Policy and Environmental Health officers to create an updated and objective evidence base for assessing air quality matters for the review of the WHA and Adur Local Plan. An air quality study to support the Local Plan is being carried out in tandem with the transport study.