

## Air Quality

The proposal to increase flight movement and permit larger aircrafts will lead to air quality impacts to local communities within Surrey Heath. Air quality impacts will not only arise directly from aircraft movements but will also be associated with vehicle traffic transporting passengers to and from the airport and servicing the airport directly.

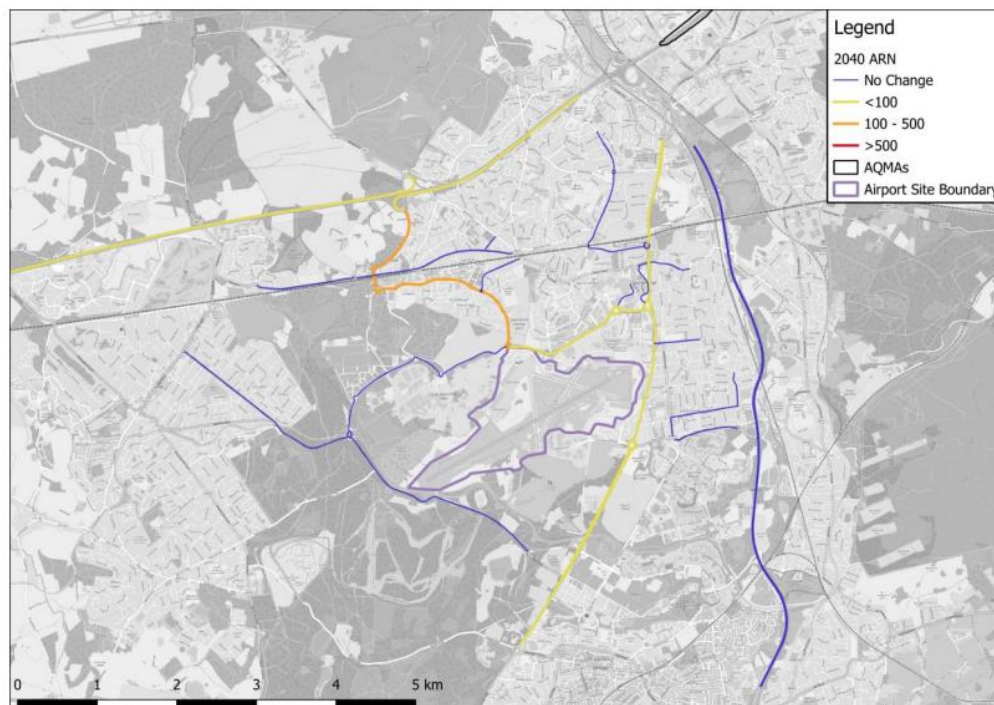
The assessment indicates that although an air quality impact to the local community exists, they are negligible in magnitude. The assessment though fails to adequately assess impacts to Surrey Heaths Air Quality Management area resulting from any additional vehicle movements.

## Additional Road Traffic Impacts.

Paragraph 7.5.4 of the environmental Statement states that there are no road links which trigger the scoping criteria for the inclusion within an air quality assessment by themselves. Surrey Heath Borough council disagree with this statement for the following reasons.

Table 7-8 within the environmental statement confirms that Surrey Heath's Air Quality Management Area (AQMA) is located 4km north of the proposed airport. Graphic 7-1 (extracted below) confirms that there will be up to 100 additional traffic movements along the M3 corridor directly as a result of the development.

**Graphic 7-1 – Change in total daily traffic flows (shown as AADT)**



7.5.4. As can be seen in **Graphic 7-1**, above, there are no road links which trigger the scoping criteria for inclusion within an air quality assessment by themselves. However, impacts arising from changes to traffic flow in combination with changes to emissions from aircraft movements and supporting on-site infrastructure may still occur.

EPUK/IAQM joint guidance Land-Use Planning & Development Control: Planning for Air Quality, sets out the criteria to when a detailed air quality assessment is required to assess any associated air quality impacts. Table 6.2, from the guidance, states that where a development causes a significant change in LDV traffic flows on local roads with relevant receptors this would meet the thresholds to require an Air quality assessment. The relevant threshold is more than 100 AADT within or adjacent to an AQMA.

Surrey Heaths AQMA spans the M3 corridor. In the absence of any specific transport data, it can only be assumed that there is the likelihood that there will be an increase of 100 AADT LDV movements within the AQMA. In accordance with the joint guidance, it would be recommended that a detailed air quality assessment is completed to fully understand the impacts to relevant receptors within Surrey Heath, specifically within the AQMA.

It is recommended that Surrey Heath raise an objection to this proposal on this specific point as it fails to provide sufficient evidence to demonstrate compliance with paragraph 192 of the NPPF.

### **Air quality impacts associated to additional aircraft movements.**

Air quality impacts associated with additional aircraft movements has been assessed using air quality dispersion modelling, and any impacts have been predicted. Within Surrey Heaths Borough Boundary, it has been predicted that there will be negligible impacts to human health resulting from the increased emissions associated with increased flight movements and size of permitted aircraft.

### **Aircraft Noise**

Aircrafts fly over some communities in Surrey Heath Borough at low levels. The proposal to increase flight movement and permit larger aircrafts would lead to increased noise impacts on these communities. Notable adverse effects include more frequent exposure to noise events, more residents would be subject to noise level above 'community annoyance level'. While an extended sound insulation scheme has been proposed, details of the scheme is not available at this stage. Please find below comments regarding the core impacts.

- Noise from aircraft movement is event noise in nature, increasing the number of flights would increase the frequency of noise disturbance experienced by local communities. If permission is granted, areas within Surrey Heath Borough would experience more noise events exceeding LA<sub>max</sub> of 65 dB every day. For example, communities in Mytchett would experience 100 – 199 such noise events per day during summer weekdays (Figure 8.2.36 and Figure 8.2.38), and 50 – 199 events during weekends (Figure 8.2.41, Figure 8.2.43, Figure 8.2.45),

which would be a significant increase from existing level. It is also worth highlighting that the aircraft noise below 65 dB is still noticeable, thus wider communities outside these N65 dB contours would experience more frequent noise events.

- When assessing aircraft noise, 51 dB LAeq,16 hr has been defined as LOAEL, over which adverse effect becomes observable, and 54 dB LAeq,16hr is identified as the onset of community annoyance. If this permission is granted, a considerable number of residents and business in Mytchett would experience noise level over 54 dB LAeq, who would not be subject to this level of noise otherwise, as shown in Figure 8.2.20, Figure 8.2.22, Figure 8.2.24.
- Modelling outputs also indicate that considerably more sensitive receptors in Mytchett (e.g. dwellings, offices) would be subject to noise level over 55 dB LAeq if permission is granted, as shown in *Air Noise Summer Day Noise 55 dB Contours* Figure 8.2.47, and *Summer Non-Weekday Noise 55 dB Contours* Figure 8.2.48.
- The noise impact modelling includes estimations and adjustments of noise profiles of future aircraft models. The estimate on fleet mix, aircraft specs, etc. carries intrinsic uncertainties. As such the modelling outputs may not fully and accurately capture the noise impacts on local communities.
- To mitigate the noise impacts, an expanded sound insulation scheme will be offered to dwellings which would experience summer day air noise levels over 55dB LAeq, 16hr. It is estimated an additional 900 dwellings would become eligible by 2040. The details of such insulation scheme are not yet available. At this stage it is not clear whether the scheme can effectively compensate households most affected by the increased air noise. Furthermore, such scheme cannot mitigate the air noise experienced by residents in their gardens during summer days.

It is recommended that Surrey Heath raise an objection to this proposal on this specific point as it fails to provide sufficient evidence to demonstrate compliance with paragraph 180 and 191, of the NPPF.