

England Noise and Air Quality Viewer - FAQs

Why are strategic noise maps produced?

Strategic noise maps of England are produced under the Environmental Noise (England) Regulations, 2006 (as amended) (“Regulations”). The Regulations transpose Directive 2002/49/EC (aka the Environmental Noise Directive, or END) into English law. The END has three core objectives – for member states to (1) produce strategic noise maps, (2) to produce noise action plans, and (3) to make information available to the public.

Useful links:

[Environmental Noise \(England\) Regulations, 2006 \(as amended\)](#)

[Directive 2002/49/EC](#)

What do the strategic noise maps show?

Strategic noise maps and action plans are required to be produced every 5 years. They must be produced for agglomerations with a population of more than 100,000 people; for major roads with more than 3,000,000 vehicle passages per year, and for major railways with more than 30,000 train movements per year. The strategic noise maps are based on the most recently published versions, by Defra.

Useful link:

[Defra Strategic Noise Mapping Report, July 2019](#)

What is the currency of the noise maps?

The road noise maps were produced in 2017. The railway noise maps were produced in 2012.

How are the noise maps made?

The noise maps are produced using detailed 3-dimensional geographic models of England. The 3-dimensional data is overlaid with transport models of relevant parts of the road and railway network, which details vehicle types, speed, etc...

This data is loaded into sophisticated calculation software which implements a calculation algorithm to calculate the levels of noise generated at and propagated from the transport network.

In accordance with the Regulations, noise levels were modelled on a 10 m grid at a receptor height of 4 m above ground.

Which calculation method has been used to produce the noise maps?

The road traffic noise maps are based on the Calculation of Road Traffic Noise (CRTN) methodology while the railway noise maps are based on the Calculation of Railway Noise (CRN) methodology.

Why are there different noise maps and what do the units mean?

Noise level indicators are a way of describing noise.

Results are shown for three noise level indicators:

- L_{den} (day-evening-night) - a 24 hour annual average noise level in decibels with weightings applied for the evening and night periods.
- $L_{Aeq,16h}$ - the annual average noise level (in dB) for the 16-hour period between 0700-2300.
- L_{night} - the night time annual average noise level (in dB) where night is defined as 2300-0700.

What are Important Areas?

Noise Important Areas (IAs) for roads and railways are based upon the strategic noise maps results and have been produced in line with the requirements set out in the noise action plans.

The IAs highlight “hotspot” locations where the highest 1% of noise levels at residential locations can be found. In accordance with the noise action plans, the IAs provide a framework for further investigation.

Useful link:

[Noise Action Plans](#)

What can I find out about a noise Important Area?

There are approximately 10,000 important Areas in England. By hovering over any road or rail IA it is possible to see the ‘IA_ID’ number.

For roads IAs only, the name of the “asset owner” is shown. This equates to the highways authority - either Highways England, or the relevant local highways authority (LHA). Under the noise action plans the relevant highways authority leads the further investigation.

In the case of railway IAs, the “rail industry” takes collective responsibility for the further investigation. This is led by the Rail Safety and Standards Board (RSSB)

Useful Links:

<https://www.gov.uk/government/organisations/highways-england>

www.rssb.co.uk

What is an Air Quality Management Area (AQMA)?

Under the Local Air Quality Management (LAQM) regime, local authorities have an obligation to periodically review and assess the air quality in their area and compare their air quality against Air Quality Objectives.

Where a local authority determines that the air quality fails, or will fail, to meet relevant objectives, they must declare an Air Quality Management Area (AQMA) and develop an Air Quality Action Plan (AQAP) setting out how the air quality will be improved.

Useful links:

[Air Quality Objectives](#)

[Defra Air Quality Technical Guidance - LAQM \(TG16\)](#)

For further information please [contact us](#).