

Wales Noise and Air Quality Viewer - FAQs

Why are strategic noise maps produced?

Strategic noise maps of Wales are produced under the Environmental Noise (Wales) Regulations, 2006 (as amended) (“Regulations”). The Regulations transpose Directive 2002/49/EC (aka the Environmental Noise Directive, or END) into 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 \(Wales\) 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 the Welsh Government.

What is the currency of the noise maps?

The road and industry 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 Wales. 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 and the industry noise maps are based upon ISO 9613, Part 2.

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 all noise level indicators set out in Regulations:

- L_{den} (day-evening-night) - a 24 hour annual average noise level in decibels with weightings applied for the evening and night periods.
- L_{night} - the night time annual average noise level (in dB) where night is defined as 2300-0700.
- L_{day} - the daytime annual average noise level (in dB) for the 12-hour period between 0700-1900.
- $L_{evening}$ - the evening annual average noise level (in dB) for the 4-hour period between 1900-2300.
- $L_{Aeq,16h}$ - the annual average noise level (in dB) for the 16-hour period between 0700-2300.
- $L_{A10,18h}$ - the arithmetic mean noise level (in dB) exceeded for 10% of each hour between 0700-2300 (for roads).
- $L_{Aeq,18h}$ - the annual average noise level (in dB) for the 18-hour period between 0600-2400 (for railways).
- $L_{Aeq,6h}$ - the annual average noise level (in dB) for the 6-hour period between 2400-0600 (for railways).

What are Priority Areas?

Priority Areas and Proximity Areas 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 and soundscape action plan.

The Priority Areas highlight “hotspot” locations where people’s homes are exposed to a L_{den} noise level exceeding 73 dB according to the noise maps, or where people live alongside concrete trunk roads. In accordance with the action plan, the priority areas provide a framework for further investigation.

Useful link:

[Noise and soundscape action plan 2018 to 2023](#)

What can I find out about a Priority Area?

There are approximately 500 priority and proximity areas in Wales. By hovering over any road or rail area it is possible to see the ‘ID’ number.

For roads areas, the name of the “asset owner” is shown. This equates to the highways authority - either Welsh Government, or the relevant local highways authority (LHA).

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

Useful Links:

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](#).