

FAQs relating to Interpretation of Strategic Noise Maps

Note: It must be noted that these strategic noise maps have been produced only for the purposes of the Environmental Noise Regulations 2006. Iarnród Éireann will not be held responsible for any outcomes that may arise from the use of these results by any party for any reason other than for the purpose of fulfilling the requirements of the Environmental Noise Regulations.

<p>What is noise?</p>	<p>Noise is unwanted sound. The issue of noise is subjective to the receiver, i.e. what is noisy for one person may not bother someone else. Noise is measured in decibels on a logarithmic scale (such that a doubling of sound energy equates to a 3 decibel increase).</p>							
<p>What is a noise map?</p>	<p>A noise map is a contoured maps show higher and lower noise levels. It is rather like a geographic map or a weather map. Just as a weather map might have isobars joining points of equal air pressure, a noise map can have contours joining points having the same noise level.</p>							
<p>What is the baseline year of the maps?</p>	<p>The maps represent a snapshot of the environmental noise situation for 2011, as required by Round 2 of the Environmental Noise Directive and Environmental Noise Regulations.</p>							
<p>What do the contour levels mean?</p>	<p>The noise contours shown on the maps show the long-term outdoor noise levels. Obviously the indoor noise levels are a function of construction of the building receiving this noise and whether there are any other influencing factors (i.e. open windows, structural changes, etc).</p> <p>The European Environment Agency Working Group on the Assessment of Exposure to Noise has produced an example graphic to explain the effect of noise exposure to various levels of L_{DEN} and L_{Night}.</p> <table border="1" data-bbox="507 1680 1394 2024"> <thead> <tr> <th data-bbox="507 1680 655 1803">L_{DEN}</th> <th data-bbox="655 1680 804 1803">L_{Night}</th> <th data-bbox="804 1680 1394 1803">Indicative Potential Effect Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="507 1803 655 2024">50-54dB</td> <td data-bbox="655 1803 804 2024">40-44dB</td> <td data-bbox="804 1803 1394 2024">Noise likely to be noticeable but generally it will not be considered overly intrusive in urban areas. In rural areas it may be considered intrusive because of higher expectation for quiet.</td> </tr> </tbody> </table>		L_{DEN}	L_{Night}	Indicative Potential Effect Description	50-54dB	40-44dB	Noise likely to be noticeable but generally it will not be considered overly intrusive in urban areas. In rural areas it may be considered intrusive because of higher expectation for quiet.
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What is L_{DEN} and L_{Night}?	<p>L_{DEN} is the noise level of day, evening and night (i.e. 24 hour noise level). Daytime extends from 07.00 to 19.00 ($L_{Aeq,12h}$), evening extends from 19.00 to 23.00 ($L_{Aeq,4h}$) and night-time extends from 23.00 to 07.00 ($L_{Aeq,8h}$).</p> <p>L_{Night} is the noise level the noise level of night only (i.e. 23.00 to 07.00 ($L_{Aeq,8h}$)).</p> <p>In general terms and for conceptualisation, L_{DEN} noise level is an indicator of noise annoyance and L_{Night} noise level is an indicator of possible sleep disturbance.</p> <p>All noise levels need to be considered relative to normal background levels or levels that are established and for which humans have become habitualised.</p>															
What are the noise maps for?	<p>Noise maps have two main purposes. Firstly, they can be used to provide information on noise levels that can be linked to population data to estimate how many people are affected. This leads to the second use - and the main point of noise mapping - to help in the production of noise action plans to manage noise and reduce noise levels where appropriate. These noise action</p>															

	plans will be prepared by the local authorities (i.e. City and County Councils) and will be issued for consultation with the public prior to their adoption
How were the maps made?	The noise maps have been made using computer modelling techniques, based on information such as rail traffic flow data, rail type, and vehicle type data. No actual noise measurements have been made in the production of these strategic maps. The modelling, where necessary, also took account of features which affect the spread of noise such as buildings and the shape of the ground (e.g. topographic landform and artificial cuttings and embankments), and whether the ground is acoustically absorbent (e.g. fields) or reflective (e.g. concrete or water). The calculations produced noise level results on a 10m grid at a receptor height of 4m above ground, as required by the END and the Regulations.
How accurate are the maps?	<p>The noise maps have been produced for use at a strategic level and give an acceptable level of accuracy for these purposes. They will not however necessarily properly represent the situation at a local level and the results of the noise mapping should not be used alone for any land use planning or location-specific assessments.</p> <p>For the second round of mapping in 2012, in addition to re-mapping the areas covered in the first round, roads having more than 3 million vehicle passages per year and railways with more than 30,000 train passages per year are to be mapped. All agglomerations with a population of over 100,000 will also be mapped. The actual roads, railways and agglomerations to be mapped in the second round will be subject to confirmation based on the most up to date data available at the time.</p>
Do noise maps show how noisy it is where I live?	In accordance with the disclaimer that must be accepted before a map search can be carried out (and which is also present on the downloadable maps), the maps are only intended to be used for strategic assessment of noise levels in any given area. They should not be used to attempt to determine, represent or imply precisely the noise levels at individual locations (e.g. individual houses, windows). It should also be borne in mind that the noise levels shown are for an average day in the year, and therefore do not show the specific noise from individual train passes.
Why are maps being published as PDFs?	The maps are currently available as PDFs only because the END, and hence the Environmental Noise Regulations, require this. It is an inevitable feature of the maps that they may not show for any particular location, the total noise exposure from all sources. This is because there may be other roads, air, traffic or industrial

activities in the vicinity of the particular location which have not been taken into account in the Iarnród Éireann strategic mapping. Therefore, to avoid presenting potentially misleading information, these maps are available only in PDF format.

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