

My name is Margaret Cocks and I have lived in Lower Earley for over 30 years. I am a recently retired GP. (I worked under my maiden name, Dr Tulley.)

Over the years the noise from the motorway has got worse. I can now hear it indoors all the time, despite having double glazing. Not having quiet in your own home is stressful. Some days I cannot go in the garden as it is so loud, and one has to shout to someone just 3m away to be heard. In the summer we cannot open the bedroom window as the noise is too loud to sleep.

The Environmental Noise Directive (2002) requires:

"determination of exposure to environmental noise by noise mapping"

also "adoption of action plans based on noise mapping, designed to manage noise issues and effects, including noise reduction."

Noise maps have been produced by DEFRA. They are computer generated, based on topography, buildings and traffic flows. This link takes you to the Lden (day, evening and night) map:

http://services.defra.gov.uk/wps/portal/noise/!ut/p/c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3hnd0cPE3MfAwMD42BTA093f1Nvk2ATAwNnA6B8JG55A2NidBvgAI4GBHSHg1yL33aQPB7z_Tzyc1P1C3JDIwyyTBQBYsELYQ!!/dl3/d3/L01DU0lKSmdrS0NsRUUpDZ3BSQ1NBL29Ob2dBRUIRaGpFS0lRQUJHY1p3aklDa3FTaFNOQkFOYUEhIS80QzFiOVdfTnIwZ0RFU1pJSIJERVNaTUpRaUlrZmchIS83XzZHTDgxQk8wOTBIMjMwSUNUSjc5ME4zM DQxLzQ5R2tnOTM5NzAwMDEvaWJtLmludi8zMDk2Mzg5NTE2NzYvamF2YXguc2VydmxldC5pbmNsdWRlLnBhdGhfaW5mby8lME1hcFBvcnRsZXRJbnN0cnVjdGlvbnMuanNw/

No actual noise measurements were taken to inform the modelling. They simulate an "average day". They do not claim to include information on wind direction or rain. The noise from the motorway is worse when the wind carries the sound (the prevailing west or southwesterly wind carries the sound towards the houses) and is much worse when the road surface is damp or wet. So I wonder if the maps are an underestimate of what is actually experienced here. Nonetheless the Lden map shows even quieter parts of Lower Earley (home to 30,000 people) exposed to over 55dB. We live in an area in the band 65 -69.9dB and some houses are in a band of 75+ dB. It should be remembered that the decibel scale is such that an increase in 10 dB is a 10 fold increase in sound pressure. So 65 dB is 10 times more sound pressure than 55dB, and 75dB is 100 times more than 55dB.

The following link takes you to the noise map for night time noise, Lnight:

http://services.defra.gov.uk/wps/portal/noise/!ut/p/c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3hnd0cPE3MfAwMD42BTA093f1Nvk2ATAwNnA6B8JG55A2NidBvgAI4GBHSHg1yL33aQPB7z_Tzyc1P1C3JDIwyyTBQBYsELYQ!!/dl3/d3/L01DU0lKSmdrS0NsRUUpDZ3BSQ1NBL29Ob2dBRUIRaGpFS0lRQUJHY1p3aklDa3FTaFNOQkFOYUEhIS80QzFiOVdfTnIwZ0RFU1pJSIJERVNaTUpRaUlrZmchIS83XzZHTDgxQk8wOTBIMjMwSUNUSjc5ME4zM DQxLzQ5R2tnOTM5NzAwMDEvaWJtLmludi8zMDk2Mzg5NTE2NzYvamF2YXguc2VydmxldC5pbmNsdWRlLnBhdGhfaW5mby8lME1hcFBvcnRsZXRJbnN0cnVjdGlvbnMuanNw/

It shows most of the area is over 50dB, but around the edges it is in the band 60 - 64.9dB and some areas are 65-69.9dB. It has been shown that there are measurable effects on sleep if background sound in the room is over 30 dB. The 1999 WHO Night Noise Guidelines document said that sound pressures on the outside of buildings should be under 45 dB to allow the inside levels to be acceptable for sleep. If there is a lot of low frequency component to noise then the threshold should be lower as it is more disruptive.

WHO Night Noise Guidelines were updated in 2009. It is a large document looking at evidence of the link between noise exposure and health. They produced recommended night noise guidelines for Europe giving 40 dB as the target level for outside noise, but with 55dB as an interim target.

http://www.euro.who.int/_data/assets/pdf_file/0017/43316/E92845.pdf

The National Planning Policy Framework 2012 sets out government plans and states developers should mitigate and reduce to a minimum adverse impacts on health and quality of life arising from noise from new developments.

In summary the background motorway noise is already above acceptable levels and having adverse effects on quality of life and health. With increased traffic it will get worse. We need any possible method to mitigate the noise problem, probably quiet road surface on all lanes, sound barriers and a reduced speed limit.