

Tube noise and vibration

Short summary of issues raised with Environment Committee

Incidence

The issues spread across London but are concentrated centrally. The Night Tube lines are generating the most complaints: the Northern, Victoria, Central, Piccadilly and Jubilee. Most of the issues are with ground-borne noise and vibration from underground and sub-surface lines.

Complaints have increased recently. The two main causes seem to be the Night Tube, which means that the same noise level is much more disruptive of sleep, and the replacement of wooden sleepers with concrete ones.

Effects

TfL has measured noise levels at 52 decibels (dB) inside homes, with even greater levels coming when two trains pass at once or in residents' own readings. This far exceeds World Health Organisation (WHO) recommended levels (35dB on average for reasonable sleep, with peak noise events not exceeding 45dB).¹ There have also been complaints of serious disturbance at lower measured noise levels. Vibration, transmitted through buildings to fittings, furniture and people, also has significant effects.

Sleep disturbance has the most severe effects on quality of life. Even without the Night Tube and overnight maintenance works, there may be quiet only for a five-hour period at night.

From the noise and lack of sleep, people reported constant headaches, hearing damage, tinnitus, fainting, falling asleep during conversations, anxiety, doing less well at work and fearing for their jobs and for the effects on others of impaired performance. Finding the disturbance unbearable, or on medical advice, people have moved out of their homes, some sleeping on sofas. Few have other accommodation, or are able to sell or rent their noise-blighted homes. Some have lost income from room rental.

Complaints and TfL's complaint handling

The people who contacted the committee said that there were many other people affected. Many were speaking on behalf of resident groups or of neighbours who were less able to communicate with TfL.

Many people have not been satisfied with parts or all of their responses from TfL. Issues have included:

- Slow or incomplete responses
- Complaints being under-counted or not properly recorded
- Responses initially brushing off or playing down the issue
- Poor investigation of the issues, for example being slow to visit the property, refusing to visit during rush hour when the problem is worst, or giving incorrect figures for noise measurements

¹ http://www.noisenet.org/Noise_Enviro_WHO.htm

- Unsatisfactory decision-making following investigation, such as deciding not to intervene where noise levels were not deemed high enough, or taking over a year to decide to intervene

TfL action

There are noise-reducing measures that can be carried out on the track, including shock-absorbent track fastenings, jointless rails, grinding rails smooth, and potentially redesigning track layouts. TfL said its regular track maintenance programme amounted to £200 million a year, and the programme for this year and the previous two has been at twice this level to fund noise reduction.

The Mayor's Noise Strategy calls on TfL to minimise noise and vibration, take account of resident and other complaints, and bring infrastructure up to the best modern practice

TfL has not so far managed to solve the problems. Issues raised with the committee include:

- Promised action being delayed or not taken
- Action taken not (fully and permanently) resolving the problem

TfL said that there was no financial constraint on how quickly it could carry out works – that the main constraint was the access time to tracks. It did not seem to have any plans to increase the number of its maintenance teams or machines so it could deliver more work in its limited access time.

There is a debate on whether TfL should prioritise work where measured noise levels are worst, or set a specific noise level to trigger action. TfL prefers to seek to solve all complaints, but has sought to prioritise by noise level at times in the past.

TfL now has a planned intervention for every complaint older than 90 days. Not all complainants know the cause of their noise problems or the planned solution. TfL told the committee and residents at the meeting that it would be happy to provide its engineering reports to the residents concerned. Committee members asked that they be provided with details of the mitigation and the timescale for each complaint, suitably anonymised.

Impact reduction and compensation

TfL does not appear to have a compensation scheme, or a scheme to offer people alternative accommodation while problems are resolved. These have been offered in some comparator cases such as Crossrail and High Speed Two.