Operational noise compliance monitoring
Woolgoolga to Ballina Pacific Highway upgrade

Transport for NSW | September 2020

Transport for NSW, Pacific Complete and its contractor partners are working together to deliver the Woolgoolga to Ballina Pacific Highway upgrade.

What is operational noise compliance monitoring?
Within one year of the upgrade opening to traffic at full speed, operational noise compliance monitoring will be carried out. This involves counting traffic movements and monitoring actual traffic noise levels. This information is used to assess if predicted noise levels match actual noise levels.

How does a noise logger work?
The device is about the size of a large shoe box, with a microphone on a pole, which is about 1.5 metres high. The weatherproof self-powered device collects and stores raw noise level data from the surrounding environment into its electronic memory. Monitors record both ‘noise pressure’ and actual sounds. Normal conversations within 3 or 4 metres from a monitor could be recorded.

How long is the noise logger left at the property?
The noise logger would be left at the property for about two weeks, and would be secured with a chain and padlock.

Noise levels at our property are higher during certain times or conditions. How is this captured?
Leaving the noise logger in place for about two weeks allows us to capture the variance of noise during different conditions, and at different times of the day. Data affected by noise from rain and high wind is excluded.

How is the noise source determined?
The noise logger captures different noise frequencies and also real sound within the environment. Highway traffic noise can be differentiated from other noise sources by analysing the audio recordings and noise frequencies. Background noise can then be separated from traffic noise.

Certain areas of our property are noisier than others. How are the logger locations selected?
Our noise specialists will assess the area to determine the best location to place the noise logger to measure increased noise contributed by traffic. The location selected is based on its distance from the highway and other noise sources, such as pool pumps or air conditioning units.

Why isn’t noise monitoring carried out at every property?
Noise will be monitored at a number of locations to determine actual operational noise levels. Sufficient locations are monitored to validate or ‘confirm’ that the noise model is accurately determining noise levels for all properties between monitoring locations.

What are the next steps?
If noise levels are found to be greater than expected, consultation would be carried out with affected receivers and additional reasonable and feasible mitigation measures may be applied.

This information will be made publicly available through a report. The report will be reviewed by NSW Department of Planning, Industry and Environment to ensure regulatory requirements have been met.