

Lesson 6: Why the NZS has set Wind Farms up to Fail

The Bald Hills judgement:

- Identified that the NZS is not written to readily identify short periods of noise nuisance that may impact sleep.
- Determined that demonstration of permit compliance does not necessarily establish that noise from time to time does not cause a nuisance.

The New Zealand Standards (NZS) assumes wind farm noise is constant – it is not – it is intermittent.

The NZS was written when turbines were small and located in the hills of New Zealand, many kms from towns and homes.

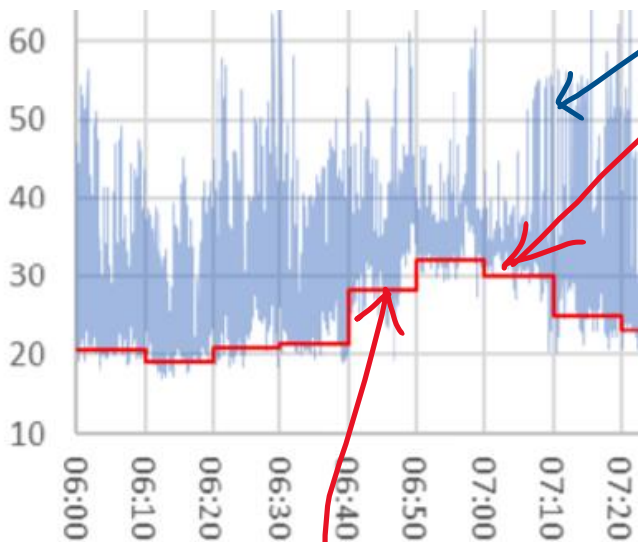
These smaller far off turbines could be heard as a constant low hum in the distance, like the hum of road traffic noise from a distant highway.

Now modern turbines are six times the size and located distances of only 1-2 kms from homes.

The LA90 statistical calculation in the NZS is based on noise being received as a constant continuous stream.

The NZS was not written to analyse intermittent noise or noise on individual nights. Intermittent noise on individual nights is a major cause of nuisance.

Here is a graph of noise from a wind farm monitor



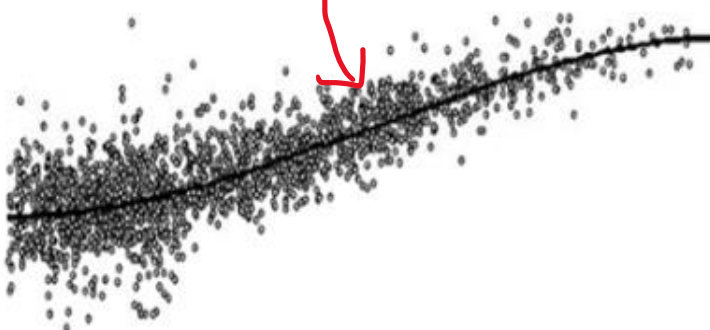
Noise Recordings - *These are the Noise Levels you hear.*

The LA90(10min) level - *This Is the Noise they say you hear.*

The LA90 (10min) statistical level is the lowest 10% level of the noise measured for that 10 minute period.

The LA90(10min) statistical level hides 90% of the noise.
It hides the high noise you hear.

- * This hidden noise occurs in each 10 minute period.
- * This is the noise that wakes people up at night.
- * This is the noise that causes the nuisance.



The LA90(10min) statistical level is plotted as a data point (dot) on a graph.

The data point is the lowest 10% noise level for any 10 min period of continuous noise monitoring

90% of the noise in any 10minute period is hidden behind every data point.

The noise you hear is hidden in every data point.

Using a Wind Farm's compliance graphs as Noise Nuisance Evidence

In a common law case it is up to the defendant to disprove the nuisance.

Given that a data point hides the high noise spikes, it could be said that every data point is evidence of noise nuisance.

It is up to the wind farm to prove that a data point does not contain the high noise that causes the nuisance.