Nuisance vs Compliance
Permit Data is Processed Data

There is a difference between raw data and processed data.

Permits only consider processed data, not raw data.

Wind farms only need to show the processed data.

Wind farms never hand over the raw data, it's too damning.

The permit allows them to process the raw data and present it as "data".

This processed data hides the nuisance.

What is Raw Data?

All "data" you see on a compliance graph has been processed from 600 seconds of raw sound levels.

The graph below shows 600 seconds of sound recording from a noise monitor.

This graph was tendered as part of the evidence in the Bald Hills Court Case.

Bald Hills is based on the NZS6808:1998 permit with 40dB LA95 as the noise limit.

The graph below is the noise you hear in a data point.

The graph is 10 minutes (600 seconds) of sound recordings which is one data point.

The raw data is processed to produce the LA95 level.

The LA95 level is the red line on the graph.

The processed LA95 level of this data point is 37.9 dB.

At this red line level, 95% of the sound measurements are above 37.9 dB and 5% of the sounds are below.

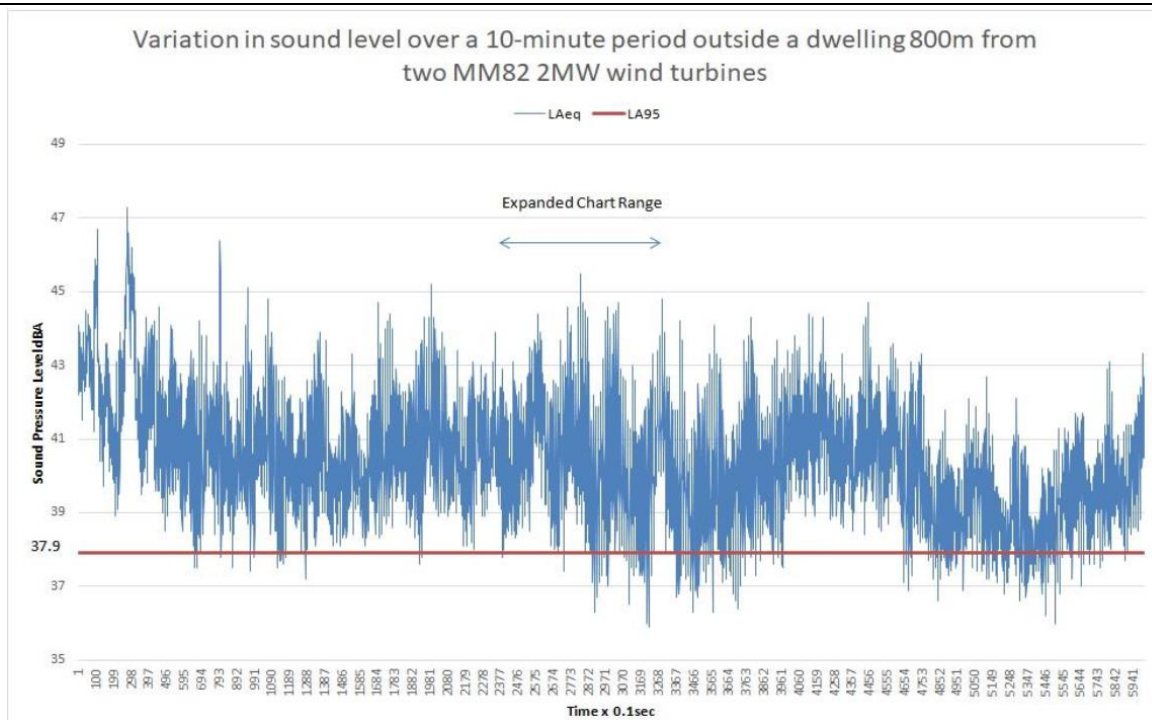Only this processed level is considered for compliance.

It becomes a processed data point that is shown as a dot of 37.9 dB on a compliance graph.

In this data point, the sound was measured when the turbines were operating in the early hours of the morning.

The acoustician listened to the audio and confirmed it was all turbine noise, no insect or bird sounds, and only a slight sound of the rustling of trees and foliage.

The graph of the sound recordings shows the typical intermittent repetitive spikes of noise that people hear.

The red line is what they say people hear.

Variation in sound level over a 10-minute period outside a dwelling 800m from two MM82 2MW wind turbines

The raw data is hidden and never disclosed.

Out of the 600 raw data sound recordings in a 10-minute period, only 1 sound level is plotted on a graph.

Processing the data allows them to ignore the high spikes of sound contained in the 10-minutes of recording.

One dot on a graph is 10 minutes of sound.

You hear these sounds but the wind farm says you only hear the single processed level.

The nuisance sounds are processed out.

When they talk about compliance levels, they mean processed sound levels.

600 sound levels become one sound level.

You are sleep disturbed because you hear all the distinctive repetitive spikes of sounds of the turbines against the natural environment.

But they tell you this is not what you hear.

They say their wind farm is compliant for noise then show you a graph full of dots.

What they say you hear is processed data.

See the graph below:

- The blue spikes are the sounds you hear.
- The red line is what they say you hear

They gaslight you.

You hear the distinctive whoosh-whoosh-whoosh nuisance sounds in each 10-minute period, but they tell you this is not what you hear.

They say our wind farm does not exceed the limit.

They say the noise is compliant with the permit.

They can, because the permit allows them to cause a nuisance and claim compliance.

The red line (processed level) is the lowest 5% or 10% of the sounds you hear.

The processed data point hides the high spikes of noise that cause the nuisance.
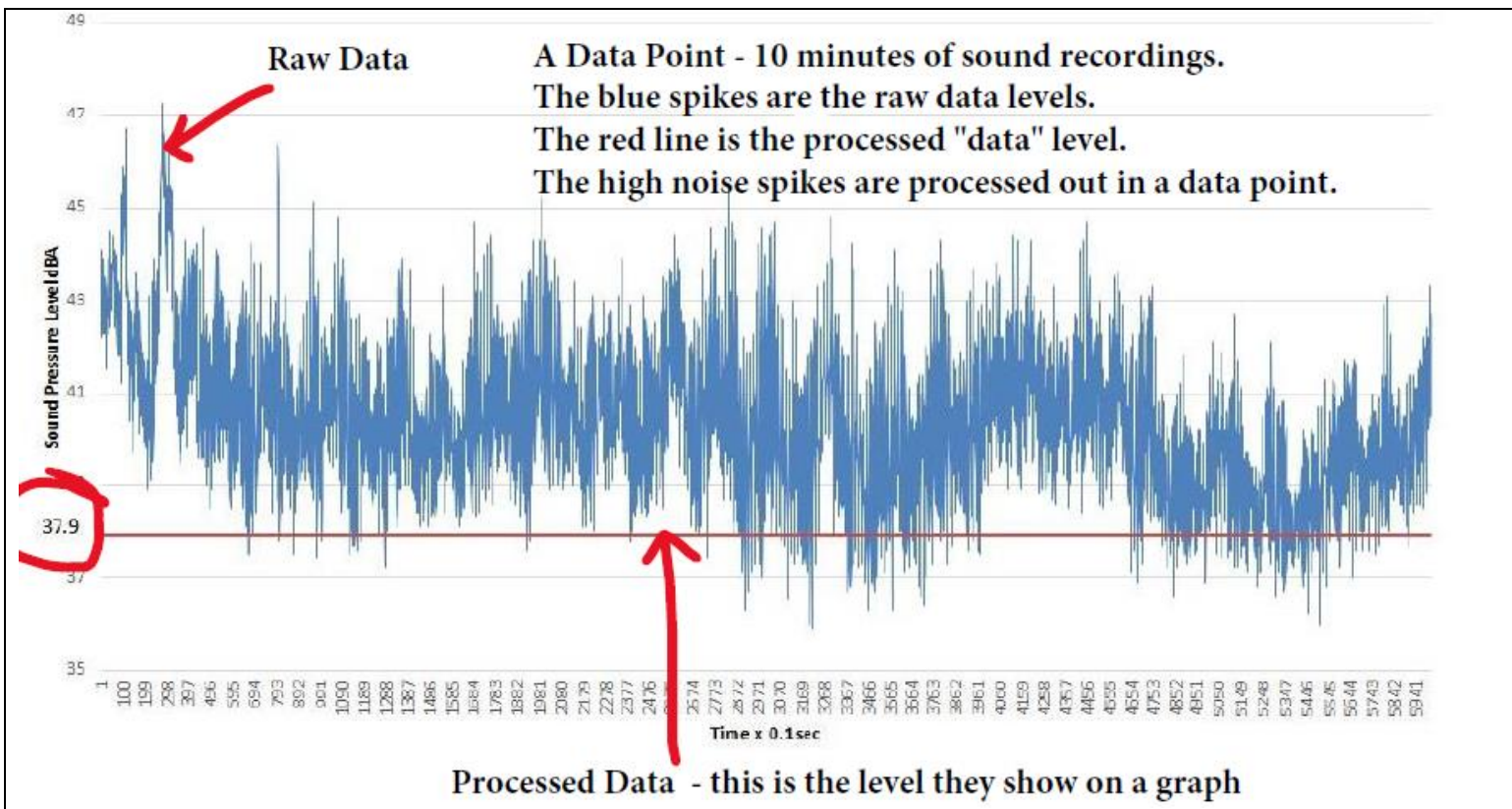
- NZS6808:1998 - 95% of the sounds are hidden.
- NZS6808:2010 - 90% of the sounds are hidden.

Processing the data allows them to cause nuisance and claim compliance.

The dot (data point) on a graph is the lowest sound you hear in the 10 minutes of recording.

The dots are then averaged over many days.

And then an arbitrary line is drawn through the dots to allow them to claim they don't exceed the limit.

Raw Data

A Data Point - 10 minutes of sound recordings.
The blue spikes are the raw data levels.
The red line is the processed "data" level.
The high noise spikes are processed out in a data point.

Processed Data - this is the level they show on a graph

Every 10 minutes of noise is processed, and the resulting data point is shown on a compliance graph as a dot.

The dots on a compliance graph hide the real noise. The dots on a compliance graph are NOT the noise you hear.

It is processed data – each dot represents the lowest 5% or 10% of the noise you hear.

Data Point
10 minutes of sound recordings

Permit Compliance Limit

Regression Line
An arbitrary line of best fit.
Each acoustician will draw this line differently.
This line is used to claim compliance.

Background Noise Level