

5 May 2017

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Dear Kelly

## **REVIEW OF NOISE PROVISIONS - WAIKATO DISTRICT PLAN**

As requested the following sets out a summary of my comments on the main noise issues for your Proposed District Plan and points that will need to be considered in order to develop a robust set of noise rules. The following addresses the concept of the noise rules in the Waikato Section of the District Plan, which is reasonable to adopt as a basis for the Franklin Section as well. Generally the Franklin section of the District Plan has either a similar form of control as the Waikato section or no control at all.

### **Standards to be adopted**

As a general comment it is recommended you change from the  $L_{10}$  measurement to  $L_{Aeq}$ . This change is based on the recommendations of latest noise Standards NZS 6801:2008 *Acoustics - Measurement of Environmental Sound* and NZS6802:2008 *Acoustics – Environmental Noise*. It depends on the type of noise assessed, but as a guide the  $L_{Aeq}$  is around 2dB lower than the  $L_{10}$  although in the conversion the same number is generally adopted ie a level of 50dBA  $L_{10}$  is simply replaced with a level of 50dB  $L_{Aeq}$ .

I believe the majority of the Operative District Plan is achieving what you are setting out to do and as such there is little need to change the basic format. Some of the aspects of the rules you may wish to consider are set out below.

### **Construction noise**

This is a simple matter of updating to NZS 6803:1999 *Acoustics – Construction Noise*.

### **Wind Turbines**

The current rule adopts NZS6808:1998 and this is the latest Standard. The only aspect of this rule you may wish to consider is the wording "*when measured at any potential building site where a dwelling could be located as a permitted activity or as a permitted activity following ...*" this can take a complying activity to a non-complying activity with the simple act of building a dwelling. I appreciate a dwelling may be permitted but considering the expected options that will be available to build a new rural dwelling on a relatively large site this needs to be taken into account. There are always exceptions to the rule but there is a Planning Tribunal (now Environment Court) decision that says if you come to the noise source you cannot expect the same level of noise protection as when the noise source comes to you. In addition, I am aware of one Environment Court decision where

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the site boundary was adopted to control wind farm noise (and this was a very hotly debated wind farm) and seven decisions where the notional boundary of sites existing at the time of the wind farm development were adopted. This is how you address extractive industries at the moment so it is not a change to any current policy.

### **Helicopters**

There is no guidance in the District Plan on the control of noise from helicopters. It is recommended you consider adopting NZS6807:1994 *Noise Management and Landing Use Planning for Helicopter Landing Areas* as the appropriate Standard.

### **Traffic noise**

This is probably one of the more contentious issues you will need to consider. Currently you do not have any traffic noise controls in the District Plan. However, you can expect NZTA to take a very proactive interest in the effects of state highway noise on new and altered dwellings.

NZTA can be expected to want any new or altered dwelling within some set distance of the highway (somewhere between 40 – 80m) to be designed to limit traffic noise to no more than 40dB  $L_{Aeq(24hr)}$  within habitable rooms. Apart from the cost to the developer you should consider the fact that this approach was rejected by the hearing panel during the formulation of the Auckland Unitary Plan. This was despite the fact that six of the nine plans involved in the amalgamation had some form of traffic noise criteria.

Another factor to consider is the requirements of NZS 6806:2010 *Acoustics- Road-traffic Noise - New and Altered roads*. The design criteria of this Standard sets levels of 64 - 67dB  $L_{Aeq(24hr)}$  where it is an altered road and 57 – 64 where it is a new road (greenfield site). As a guide, the level within the dwelling will be 15dB below the external level with windows open to provide ventilation. From the above the internal design level proposed by NZTA is between 49 – 52dB where the road is altered and 42 – 49dB for a new road in a greenfield site, the altered road being a closer comparison to the NZTA proposal of a new house being designed to an internal noise level of 40dB. Looking at the numbers it is apparent there is a double standard, the design level depending on whether you are generating the noise (NZTA) or the receiver of the noise (dwelling owner).

In addition, if a dwelling is already exposed to high traffic noise NZTA do not offer to rectify, or even assist, with the perceived problem.

Both NZS 6805:1992 *Airport Noise Management and Land Use Planning* and NZS 6809:1999 *Acoustics - Port Noise Management and Land Use Planning* adopt the approach that if they generate noise above what is considered a reasonable level then they will either pay a percentage of the cost to upgrade the dwelling or pay for it in full and in the extreme will purchase the dwelling. They also expect a new dwelling owner to pay to achieve the upgrade – this would be a level playing field. This is what is already in the Operative District Plan in Rule M5 for the airport so you have such an approach in place already.

In the event you do take on board the NZTA proposal I think it only reasonable that they take a similar approach as the ports and airports rather than the one sided approach they currently adopt, which does not actually make much of an inroad into the traffic noise problem they suggest is present. This is something you will need to consider although it would be difficult to support the current NZTA approach.

### **Airport**

The existing airport noise controls are considered reasonable unless there have been problems experienced with them in the past so it is recommended these controls should be simply rolled over.

### **Location of measurement point**

Noise controls in the living zone are “at any other site”. It is recommended the wording should be changed to “within any other site”. A control at the boundary means just that; it implies a level of precision that is not appropriate and difficult to confirm in Court unless a surveyor has checked the exact position of the site boundary. Also if there is a solid fence on the boundary the noise level against the fence may comply but for various reasons (such as because of the slope of the ground there is no screening close to the house) the noise will exceed the set limit. Similarly, in the light industrial zone the measurement location is “at any other site”. There should be some consistency between rules.

Currently the District Plan adopts the site boundary as the assessment position in a rural zone. I understand this is most likely to take into account the fact a dwelling may be located anywhere on a property so this could change an existing permitted activity into a non-complying activity simply because a new dwelling has been constructed. However, what the rule actually does is to require a new activity to implement excessive noise control when the dwelling may be 1km away and the District Plan may not allow a new dwelling to be constructed on that property. While it is not suggested unlimited noise is permitted, it should be kept in mind that rural zones are a working environment and relatively high noise levels between rural zones would not be unreasonable. The site boundary approach would be difficult to support in such circumstances. This would be a policy change so you need to determine how you wish to address it in the District Plan. In the event you decide to review this current policy the control would be “within the notional boundary of any dwelling” to protect residents.

### **Daytime / night time levels**

The only reason the noise levels in rules varies between the daytime and night time is to take into account differing environmental expectations, such as sleep disturbance. In an industrial zone this is acknowledged with a relatively high level 24 hours of the day, as a control is not necessary in an industrial zone for sleep disturbance. However, the current rule adopts a lower night time level in “*other zones*” of 45dBA L<sub>10</sub> at night. If the neighbour is a rural or recreation zone this appears to be an over design (subject to controlling noise to protect any house in the rural zone). I think these points need to be rationalized.

### **Recreation Zones**

The control of recreation noise should be reviewed. The current noise control is agreed with although you may wish to make some clarifications, such as the rule does/does not include crowd noise. The actual levels may need to be reviewed as they are relatively stringent at the moment – assuming this is the direction that you wish to take.

I think the temporary event should have some guidance on noise limits to prevent abuse of the system without stifling the aims of the temporary events control.

### **Special Activities**

Special sites such as Te Kowhai, Waikato Gun Club, Hamilton Airfield, Meremere Dragway, Hampton Downs Landfill, Hampton Downs Motorsport Park etc are operating well at the moment so there is no reason change these limits, other than perhaps to update the District Plan to reflect any resource consent controls in place.

### **Extractive industries**

These controls are generally good and only need updating.

### **Intensive farming**

Rules for this type of activity do not appear to require any change.

**Exclusions**

These are dealt with in some section of the current rules and will need to be checked with perhaps some additions

**Vibration**

Retain Aggregate Extraction and Processing Zone vibration limits although you may wish to move to the German Industrial Standard DIN 4150-3 (1999): Structural Vibration – Part 3 Effects of Vibration on Structures.

I am aware that a number of District Plans are adopting vibration limits. However, you will need to consider if this is appropriate for your Plan. As a general comment I doubt if you ever have vibration effects apart from quarries, which are addressed separately. I have never come across a vibration problem where treating the level of noise associated with vibration does not remedy the concerns. Another issue you need to address is whether Council is able to measure the vibration. To have a rule you cannot check is not necessarily good practice. Regardless, you have section 16 of the Resource Management Act to fall back on if necessary.

**Mixed Use Zones**

I am unsure if there are any mixed use zones being allowed for in the Proposed District Plan. That is zones where noise sensitive activities (such as residential) are proposed in some form of business zone where the permitted noise is higher than would normally be accepted as reasonable for a noise sensitive activity. In these cases, there should be a rule that requires the noise sensitive activity to be designed to take the higher noise level into account so controlling any reverse sensitivity effects. If there are any such situations it will be necessary to include a design criterion for the noise sensitive activity to be designed to (a similar approach is required for dwellings near the airport).

Should you have any questions regarding the above please do not hesitate to contact me.

Yours sincerely  
Hegley Acoustic Consultants



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