

Appendix E

Technical Memo from Glynn Jones - Noise

PART 1: INTERNAL REFERRAL INFORMATION

Comments due by:		Processing Planner:	Todd Whittaker
Consent number:	LU/0154/20		
Address:	35 Lochiel Road RD 2 Hamilton 3282		
Applicant:	BBC Technologies Limited and Grass Ventures		
Description	Land use consent for the construction, operation, use and maintenance of a rural based industrial activity (blueberry processing plant) in conjunction with SP/0082/20		
Agent:	Mitchell Daysh Limited		
Allocated to:	Glynn Jones		
Date of site visit:			

Assessment undertaken by Environmental Health :-

Name: Glynn Jones



Signed:

Date: 4 November 2020

Background

I am Glynn Howarth Jones employed as an Environmental Health Officer at Waipa District Council. I have around thirty five years of experience working in Local Government dealing with noise complaints and providing advice for resource consent applications in the United Kingdom and New Zealand. I was the Team Leader Noise at Wellington City Council and have attended planning hearings in a specialist noise role, whilst working at Wellington City Council, Kapiti Coast District Council and Waipa District Council. I hold an MSc in Acoustics and Noise Control and I represented Local Government New Zealand for the revision of three acoustic standards (NZS 6801:2008 Measurement of Environmental Sound, NZS 6802:2008 Acoustics – Environmental Noise and NZS 6806:2010 Acoustics Road Traffic Noise- new and altered roads).

Review of Acoustic Report

I have reviewed the Marshall Day report dated 3 September (Rp 001 20200634) which has assessed the noise effects from the proposal. The predictions for the manufacturing activity in the report have an added benefit from being based on noise levels of plant at the existing site that is to be relocated. There does not seem to be any reason to question this data or the predictions, although it is not clear what exactly is being manufactured.

The report is a desk top study as a background noise survey of the site has not been carried out. It is normally necessary to establish the prevailing noise environment to establish if the District Plan standards or predicted levels (exceedances) are reasonable for the area. I have not visited the site however, I am familiar with the location and area. There are existing noise sources from the relatively busy State Highway 21 which has a 60 kph speed limit at this point, an airport runway relatively nearby and commercial operations associated with the airport zone further up the road. This means that this is not the quietest of rural areas and I would expect that the District Plan standards present a very reasonable compliance standard for the protection of the amenity of residential occupiers at this location. At times, it would be anticipated that the prevailing noise sources will exceed the District Plan standard by a noticeable degree, particularly when vehicles are passing or when aircraft are taking off or landing.

Waipa District Council has had some recent complaints about fruit farm operations causing noise issues elsewhere in the district. These have been related to the beeping noise from fork lift truck reversing signals, plastic tunnel enclosures flapping in the wind, external farm machinery operating in the field, audible bird scarers, frost fans and external light spill.

For this application site, general farm operations in the field have an exemption from the noise limits in the District Plan rural noise rules, as advised by the acoustic report. This exemption is reliant on best practice being maintained to ensure that noise is minimised. There will also be no frost fans or bird scarers to consider. However, the operation of external fixed plant such as HVAC and dust extraction systems, air compressors, fork lift trucks and loading/unloading of vehicles are particular sources of noise that will require adequate noise control at source or, acoustic screening.

The report recommends that the design and location of any mechanical plant is reviewed by a recognised acoustical consultant and I would also recommend that this is a condition of consent which also requires that an assessment report is submitted to the Waipa District Council.

Noise from the fork lift truck engines should not normally be an issue during daytime hours. The main noise issues from fork lift trucks are use at night and the piercing nature the beeping noise from the reversing signals that are fitted as standard. The fork lift truck operations could be conditioned to limit use during the night time hours. I would also recommend that a condition requires that fork lift truck(s) are fitting with broadband reversing devices to mitigate the piercing nature of standard tonal devices.

I would concur with the report that the small noise exceedance at 8 Lochiel Road during the night time peak hour shift changeover times is not significant or out of character with noise from vehicle noise on the road. As such, the report does not recommend any acoustic boundary treatment to mitigate any noise in the direction of 8 Lochiel Road.

However, I would refer to the overarching duty under section 16 of the Resource Management Act 1991 (the Act) to adopt the Best Practicable Option to ensure that the proposed development does not exceed a reasonable level. In this respect, I would recommend that an acoustic fence is erected along the application site boundary on the Lochiel Road side. This would not mitigate any noise from additional vehicles on Lochiel Road. However, if the occupiers are minded, a fence or bund erected on the boundary of 8 Lochiel Road could present a potential option for added mitigation of road noise and from any effects from car headlamps as well. Another option that could be considered is a green wall noise barrier. This is usually constructed using a modular wall that is heavily planted to blend with the landscape. A green wall also has an advantage of taking up less width than a conventional bund.

In this respect, the applicant has further proposed to install an earth bund and associated planting along the inside of the boundary of 8 Lochiel Road to mitigate any potential noise and light (from headlights) related effects. Depending on height and if accepted by the residents, a bund or green wall at this location could present the most favourable mitigation measure.

It would also be recommended that glare from any proposed external lighting is specifically assessed and controlled. The District Plan lighting rules provide some control from the effects of light spill, but this is not easy to measure or enforce in practice.

Submissions

I have also reviewed Mr and Mrs Clark's submissions and I believe that that they are the same.

The Clark's are concerned that noise will be an issue in peak hours and from the number of daily trips past their property. As discussed above, the small predicted exceedance due to vehicle noise can be mitigated with an acoustic fence. A restriction of hours for delivery vehicles and loading/unloading operations would also help to allay noise concerns.

The Clark's submit that noises generated on site are not those that would be usually expected in a rural zone. I would concur that the anticipations of the existing area and use need to be assessed to form a baseline to establish a reasonable compliance noise level for a new activity seeking to establish. However, for any site in the rural area, a fair comparison can also be made with the potential for a farm to establish, which would be an anticipated activity in a rural zone. A farm may operate 24 hours a day, every day of the year and the activity can include very noisy operation of machinery outside (including fork lift trucks), which in some cases has greater potential effects than a factory. The close proximity to the airport and a relatively busy road are also noise sources at this site that would not be anticipated in some rural areas.

It is not clear what is being manufactured exactly at this site, but manufacturing noise is predicted to be contained within the structure. It is also anticipated that other noise sources related to the proposed operation will be able to be controlled to a reasonable level. There may be a larger potential number of vehicle movements compared with a farming activity of this size. However, it is predicted that noise from vehicle movements will not be significant (including car door slams) and further protection can be provided with an acoustic fence, bund or green wall.

Conclusion

I have reviewed the application and acoustic report. Subject to conditions that are acceptable to all parties, I would anticipate that the proposed activity can comply with a reasonable noise level and that the effects will be no more than minor.