

**Before Independent Hearings Commissioners Appointed by Canterbury
Regional Council and Selwyn District Council**

In the Matter of the Resource Management Act 1991

And

In the Matter of Applications by Fulton Hogan Limited for all resource
consents necessary to establish, operate, maintain and
close an aggregate quarry (Roydon Quarry) between
Curraghs, Dawsons, Maddisons and Jones Roads,
Templeton

**Evidence of Michael James Smith
on behalf of Templeton Residents' Association**

Acoustics

Dated: 14 October 2019

INTRODUCTION

1. My full name is Michael James Smith. I am a principal at Altissimo Consulting Ltd. I have previously been employed by multi-disciplinary firms AECOM and URS, and specialist firm Marshall Day Acoustics. I hold the degrees of Bachelor of Engineering (Mechanical) and Bachelor of Mathematical and Computer Sciences from the University of Adelaide.
2. I have practised in the field of acoustics since 2006. I am a full member of Engineering New Zealand (MEngNZ), the Acoustical Society of New Zealand (MASNZ) and the Australian Acoustical Society (MAAS).
3. I have extensive experience assessing the effects of major infrastructure such as roads and windfarms, often located near rural dwellings. I regularly provide advice for applicants, submitters and regulators.
4. I confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses, contained within the Environment Court Practice Note 2014, and that I agree to comply with it. I confirm that the issues addressed in this will say statement are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.
5. I was engaged by the Templeton Residents Association Incorporated (**TRA**) in August 2019, and was briefed by Ms Jolene Eagar and Mr Martin Flanagan on the concerns of the TRA. My scope was to review the application and identify any opportunities where the effects of the project could be reduced.
6. I have visited the site during the day, focussing on the four perimeter roads (Jones Road, Dawsons Road, Maddision Road and Curragh Road), the interface with SH1, and the connection to Templeton.
7. I attended a meeting on 7 August 2019, to discuss the Proposal with the noise experts engaged by Fulton Hogan Ltd (**Fulton Hogan/Applicant**), Selwyn District Council, Canterbury District Health Board, and the New Zealand Motor Caravan Association. While a Joint Witness Statement has not been produced as a result of this meeting, it was beneficial to understand the position of each party and better understand the application.
8. Since that meeting a number of changes have been made by Fulton Hogan to reduce the scale and intensity of the Proposal, in general reducing the level of effects, including in relation to noise, and have been recorded in the evidence of Fulton Hogan's witnesses. My evidence addresses the Proposal as amended by Fulton Hogan's evidence. I provide comments on aspects of that evidence relating to noise effects and the proposed quarry land use consent conditions set out in Mr Bligh's evidence.

9. In preparing my evidence, I have reviewed the following documents:
 - 9.1 Acoustics Assessment by Marshall Day Acoustics included in the application;
 - 9.2 S92 responses both before and after notification;
 - 9.3 S42A report, including evidence of Dr Jeremy Travathan (acoustics);
 - 9.4 Evidence of Mr Jon Farran (acoustics) for the applicant; and
 - 9.5 Evidence of Kevin Bligh (Planning / conditions) for the applicant.

POTENTIAL EFFECTS

Onsite Activities

10. The evidence of Mr Farren provides a summary of the key noise generating activities. Predicted sound levels from each stage of activity are presented in Table 16 of the Acoustics Assessment. The methodology and prediction method adopted are consistent with standard practice.
11. In general, the predicted sound levels are relatively low and comply with the permitted activity standards from the Selwyn District Plan. The criteria adopted by the Applicant are lower than major infrastructure such as roads, and in my view are appropriate.
12. At the closest properties, extraction activities will be audible outdoors over the ambient sound environment. I understand that many of the neighbours are at home during the day and work or spend a significant amount of time outdoors. While not affecting ability to perform domestic tasks, sound from the proposed quarry may result in a change in amenity and decrease the enjoyment of their property.
13. I understand the Applicant intends to only use mobile processing plant when different sized aggregate is required, and that such plant can be placed alongside fixed processing plant in the pit. Given this, I recommend that the same 500m setback from the site boundary for fixed plant be applied to mobile plant.

Out of Hours Operation

14. The Applicant's proposed conditions allow for 60 days per year where trucks are allowed to collect material from the site or deposit cleanfill, between the hours of 2000-0700h. Similarly, truck activities may occur on Sundays and Public Holidays for up to 15 days per year. I understand that out of hours operation will only occur when there is a specific project that requires aggregate.

15. As detailed in Table 16 of the Acoustics Assessment, sound levels for night activities will generally be below 40 dB¹ at affected properties, which is considerably below the site boundary noise limit of 45 dB. Sound at these levels is below sleep disturbance criteria even with windows open.
16. I consider sound at these levels from a limited number of activities to be reasonable, provided that no tonal reversing beepers are used by any vehicle on site, and that all trucks take the direct route to SH1. I will discuss both of these points below.

Tonal Reversing Beepers

17. The Applicant has proposed that all site-based plant will either not have any reversing beeper and rely on a flashing blue light for safety, or be fitted with a broadband reversing alarm. The evidence of Kevin Bligh states that it is not appropriate to extend this to trucks servicing the quarry. I disagree.
18. The Applicant is proposing that all transport companies / drivers sign to a code-of-practice detailing the various site rules and restrictions on using local roads. I expect that this will need to happen prior to the arrival of trucks at site, potentially. In my view, this code of practice should also include restrictions on tonal beepers.
19. The cost of the supply/install of replacing tonal alarms with broadband alarms is in the order of a few hundred dollars. It is reasonable for Fulton Hogan to require this as a condition of entry.
20. Tonal reversing alarms are audible at considerable distance, particularly at night.

Offsite Trucks

21. The traffic evidence from Tim Kelly and Andrew Metherall indicates the Applicant now proposes that all traffic will exit the site via Jones Road, turn right onto Dawsons Road and then onto SH1. I understand that many of the Templeton residents remain concerned that trucks will continue eastbound on Jones Rd past Dawsons Road.
22. The Applicant's proposed condition 22 prohibits travel on local roads, but only during the hours of 2000-0600h. During daytime hours, the expectation is that trucks may only travel on Jones Road through Templeton if there is a local delivery (proposed condition 38(a)).
23. Notwithstanding the above assurances, in my opinion noise effects would be unacceptable if night truck movements occurred on Jones Road.

¹ All sound levels in my evidence are 15-minute time-average levels -- dB LAeq(15min)
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24. Two alternatives for intersection upgrades have been considered by the Applicant. The chosen alternative should, in my view, be designed to discourage heavy vehicle movements eastbound on Jones Road.

NOISE MANAGEMENT

25. The Applicant proposes the creation of a Community Liaison Group (CLG), which I support. The use of CLGs is common for ports, airports and other infrastructure where there is some conflict with residential / rural landuse. For example, Lyttelton Port has a Port Liaison Committee which meets quarterly. The purpose of the CLG is two-fold: to better inform the community on the operation of the quarry, and to have a forum for the community to raise their concerns.
26. A suite of management plans is proposed by the Applicant (proposed condition 78) targeted specifically at environmental effects. To better enable the community to understand the operations of the quarry, an overarching Quarry Management Plan (QMP), incorporating the individual management plans, may be appropriate in my view, as has been used on other quarries.
27. Prior to submission of the QMP to the council for certification, the CLG should be able to provide written comments on the QMP and in the individual management plans within it. These comments should be appended to the versions submitted to the council.
28. The objective of the Noise Management Plan contained in the QMP should be to detail processes that Fulton Hogan will adopt to minimise noise effects from the operation of the quarry.
29. Conditions requiring advance notice of "Out of Hours" Activities to be provided to the community, including supporting information as to why activities must occur outside of core hours, would also be preferable in my opinion.
30. To assist the community to understand the level of activity at any time and how it may compare to the maximum consented output, I recommend that the following information be made available on a website:

30.1 Construction progress

30.2 Locations that are currently being extracted / processed area

30.3 Daily numbers of trucks through the gate

30.4 Number of Out of Hours Activities cf. quota

31. In addition, I recommend that the Noise Management Plan be reviewed and updated periodically, and specifically prior to the commencement of a new stage. I also recommend a process for the CLG to initiate a review should there be community concern.

Dated this 14th day of October 2019

Michael James Smith