## IABLED AT HEARING

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## Nancy Gibb. Tuesday 3 December 2019, 1.30pm.

I am fully deaf, dependent on lipreading for communication and have a cochlear implant which gives me environmental sounds only. For these reasons I requested a CART stenographer to assist me, mainly when answering any questions which might be difficult to lipread.

I am totally opposed to development of the quarry. In my original submission I listed five main concerns: air pollution, water, roads and transport, the environment, and noise. Admittedly as I am deaf noise is not such an obvious concern for me, but being deaf I am also hypersensitive to vibrations - I jump if there is a sudden noise, I call tell if a truck or motorbike is going past our home (or is it just an earthquake) and I can "feel" heavy traffic thundering past when sitting in a car. I would imagine babies, young children and aged people would be particularly susceptible to the same sensations. The thought of such vibrations day in day out in the vicinity of the proposed quarry due to truck movements is unbearable.

My main concern however is air pollution. I know that there have been presentations from air pollution experts (eg Kirkby on 14 October and Wickham on 17 October); but I would like to present a more personal perspective.

I live just over one km away from the proposed quarry site, as shown on the map.. As noted in my original submission, we are right on the city boundary and experience strong winds coming from all directions, even though one might expect us to be shielded from the more southerly ones by surrounding houses. Plants in our garden grow more slowly due to the microclimate caused by the wind and tall ones are sometimes knocked over. The blossoms on our blackboy peach tree have been blown off completely the past two years. In other words, the winds can be strong! There is a shelter belt of trees approximately half a km from us in a NW direction. The distance of almost all the proposed bunds for the proposed quarry excavation is greater than that. The houses surrounding us to the south, sort of architectural bunds, offer limited protection. So, what use would the quarry bunds be?

The proposed quarry will be in a pit ten metres deep. Strong winds passing over the top will suck up dust and easily swirl it up to high levels not covered by the monitors. Eventually it will settle down ... where? In our homes, on the washing, on our gardens, on our growing vegetables, on our roads where it will be stirred up again, on fields where animals graze and on our sports fields particularly the new one proposed recently.

If the quarry goes ahead we are told that there will be monitors, mostly at fixed points, and that some will be moved according to the wind direction. I wonder just how effective they will be in terms of height, placement and monitoring capabilities - ideally monitored by an independent authority, such as ECan - but it is well known that ECan has limited resourcing particularly for compliance monitoring.

I'm a former biochemist and medical research scientist, and am well aware of the limitations of monitoring and analysing instruments of any kind, and the need for maintenance and frequent calibration, otherwise results can be unreliable and even useless.

Various dust mitigation measures have been proposed, measures that will take expected dust levels below the acceptable upper levels as set in 2016 by the IAQM. Fulton Hogan in their S92 Response Report Appendix B - Good Practice Dust Control Comparison say they would assess weather and ground conditions at the start of each day "...and ensure that applicable mitigation measures and methods are ready for use"... and that ".. at any time... if visible dust is blowing beyond the site boundary or if targeted monitoring triggers are reached ..." (and who is going to set those?) ...they will cease all dust generating activities and continue all dust suppression activities. I find this statement hard to believe - considering NZ's notably changeable weather, will quarrying activities be start, stop and go all the time?

Further, I understand that all the proposed mitigation measures apply to fixed processing plant. What of the mobile processing plants which have only been referred to vaguely. Will they also be monitored and mitigation measures put in place?

I am totally opposed to the quarry for these and the many other reasons expressed by others.



Below: View from Home looking NNW. Yellow arrows indicate shelter belts

