

BEFORE ENVIRONMENT CANTERBURY AND THE CHRISTCHURCH CITY COUNCIL

TABLED AT HEARING

Application: *Road Metals*.....

- joint hearing.....

Date: *4 April 2018*.....

In the matter of

the Resource Management
Act 1991

And

In the matter

Applications for Resource
Consents by Road Metals
Company Limited –
Proposed Quarry Expansion,
Yaldhurst

SUBMISSION BY KEVIN AND LYNNE CREWS, 120 OLD WEST COAST ROAD

Introduction and Background (at least as I see it)

1. My name is Kevin Crews (*NB: correct spelling of Crews*). Along with my wife Lynne Crews and our son Nickol Crews we are residents of 120 Old West Coast Road. We have lived at this residence since June 2006. We also have two daughters Sophie and Samantha, who up until 2012 and 2015 respectively, also lived at 120 Old West Coast Road.
2. We are identified as Sensitive Receptor R4 in the resource consent application of Golder Associates (August 2017), being 150 metres (from our household) to the proposed quarry face.
3. I am also a registered veterinarian with the Veterinary Council of New Zealand, being qualified since 1983. In addition to my veterinary qualifications I also have a post-graduate qualification, by examination, in epidemiology (the study of disease occurrence in populations) through the Australian and New Zealand College of Veterinary Scientists.
4. The reason we are all here is that the Road Metals Resource Consent application is to enable it to be permitted to undertake activity that results in effects that are non-complying with various rules and plans applying at this time, i.e. they have applied for resource consent to discharge dust to air from the proposed quarry expansion.
5. A Commissioner appointed by the Christchurch City Council decided that the resource consent application needed to be notified under the Resource Management Act 1991 as there were parties that would be adversely affected by what was proposed. The Commissioner determined that the application did not need to be publicly notified but would be a limited notification to only those property owners and occupiers within 250 metres of the proposed expansion.
6. A resource consent hearing has been triggered by a significant number of the notified property owners and occupiers opposing the Road Metals resource consent application.
7. The consenting authorities have appointed independent Hearings Commissioners for the consent hearings.

8. When considering an application for resource consent and any submissions received, the consent authority must have regard to the matters listed in Sections 104 and 104B of the Resource Management Act 1991. Subject to Part II of the Act, which contains the Act's purpose and principles, including matters of national importance, the consent authority shall have regard to:
 - a) Any actual and potential effects on the environment of allowing the activity.
 - b) Any relevant provisions of a plan or proposed plan, national environment standard and regional policy statement.
 - c) Any other matter the consent authority considers relevant and reasonably necessary to determine the application.
9. I also understand that if a proposal is a non-complying activity under the District Plan, Section 104D of the Resource Management Act 1991 applies, which provides a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either(a) the adverse effects of the activity on the environment (other than any effect to which s 104(3)(a)(ii) applies) will be minor; or (b) the application is for an activity that will not be contrary to the objectives and policies of the relevant plan.
10. As one of the limited notification land owners that the consenting authorities have decided will be adversely affected by what the application proposes (*CCC/ECAN letter to Kevin & Lynne Crews, Joint Limited Notification of Resource Consent Applications, 12 December 2017*), I have been given the opportunity of making a submission and having this heard before the Commissioners.
11. My submission will cover four main issues: (i) Rural character and amenity; (ii) Dust as a public health risk, not just as a nuisance; (iii) Minimum setbacks as a mitigation measure for adverse effects; (iv) Economics of the proposal.

Rural character and amenity

12. The Crews family have lived at 120 Old West Coast Road since June 2006. Currently residing there are myself, my wife Lynne and our 17-year-old son Nickol. We also have two daughters Sophie and Samantha, who up until 2012 and 2015 respectively, also lived at 120 Old West Coast Road.
13. Our property can be considered the classic "lifestyle block", being 7 acres (2.83 hectares), with a house, orchard trees (apples, pears, plums, peaches, walnuts), a stable, 3-bay shed and four paddocks. We currently have 9 sheep, a goat and a dog. At various stages over the 12 years since we have been there we have also had domestic cats, more dogs, sheep and goats, plus horses, domestic rabbits and guinea pigs. We have a multitude of resident birds, both native and introduced, plus occasional transient game birds (quail, pheasants). We also have the habitual mammalian pests (possums, rabbits, hares, rats, mice) which are just part of the "deal" of being in the

country. We grow grass and in a good year make 140-170 traditional hay bales which we stack ourselves and feed out in winter.



14. None of any of this makes us any money but that is not the reason why we chose to shift to 120 Old West Coast as a family, when our kids were quite young, nor why we continue to choose to still live there. It is the intrinsic values of “lifestyle” associated with small rural holdings in proximity to the city that attracted us (and still attracts us) to live there.
15. As CCC Planner Emma Chapman writes in her S42A Report (paragraph 117, page 27), the objectives and policies of the rural chapter (Chapter 17) of the District Plan provide guidance as to the rural character and amenity values which are anticipated by the District Plan for the rural land surrounding the City. In particular, policy 17.1.1.3 identifies that rural character and associated amenity stems from the following: i. a landscape dominated by openness and vegetation; ii. significant visual separation between residential buildings on neighbouring properties; iii. where appropriate, buildings integrated into a predominantly natural setting; and iv. natural character elements of waterways, water bodies, indigenous vegetation and natural landforms, including the coastal environment where relevant.
16. “Amenity value” is also defined in the Resource Management Act 1991 and means: those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.
17. It's for these similar reasons of “rural character and amenity” that attracts many of us to live in the rural-urban fringe purely for lifestyle reasons. While such “lifestyle” motivation will likely appear somewhat quaint and old-fashioned, and probably inconvenient, to commercial entities that solely seek to derive or extract profit from above or below the same ground, these are our intrinsic values and it is our inalienable right to possess these values.
18. Given this, it is my belief that allowing the non-complying expansion of quarrying activity within close proximity to our property, and much closer to other property owners, with the probable increase in noise, vibration, dust and visual effect will create adverse effects that will have more than minor impact on our rural character and amenity.

Dust as a public health issue, not just a nuisance

19. Much word space has been devoted to dust as an adverse event resulting from the Road Metals proposal for this hearing. I do not profess to be an expert in air quality as to the nuisance effect of dust as an adverse event and will leave that to be covered by other experts during this hearing.
20. The issue of respirable crystalline silica (RCS) resulting from quarrying activities is inarguably a public health risk requiring quantification, not simply a nuisance issue. It

should more appropriately be addressed by public health experts and epidemiologists, not engineers or geologists.

21. Both the CCC and ECan Planners make extensive use of the Tonkin and Taylor report in their S42A reports: (i) Paragraphs 89-93 of CCC Planner's Report, particularly paragraph 93 "I rely on the advice of Tonkin & Taylor (T+T) to conclude that the adverse dust effects of the proposed extraction can be mitigated to the extent that they will be less than minor and objectively acceptable." (ii) Paragraphs 51-57, particularly paragraph 57, and Appendix 2 of the ECAN Planner's report.
22. There appear to be contradictions in T+T's assessment that the adverse dusts affects of the proposed extraction will be less than minor, particularly RCS risk, when; (i) they concede they are unaware of the crystalline silica content of the greywacke material the Yaldhurst area (paragraph 5.62, Appendix 2 of ECAN S42A Report) while simultaneously conceding that "The rock material that is being quarried contains crystalline silica. Therefore the dust generated from extracting and handling the aggregate can contain crystalline silica particles in the fine, respirable size range; i.e. respirable crystalline silica (RCS)" (paragraph 5.2, Appendix 2).
23. T+T also concede the lack of data on ambient RCS concentrations in the vicinity of the proposal (paragraph 5.67, Appendix 2) and "In the absence of data from this programme, there is uncertainty about the effects of existing quarrying activities on ambient RCS concentrations". Given this concession of the uncertainty of ambient RCS concentrations in the area, I find it difficult to comprehend how T+T can conclusively state that the affects of the Road Metals proposal on RCS levels in the vicinity will be less than minor.
24. No matter how much wishful thinking is going on, the matter of RCS and quarrying is not going away. In my opinion, what needs to be undertaken are properly designed, objective epidemiological studies into the attributable risks of quarrying as a risk factor for both RCS levels over and above ambient levels and for attributable association with chronic respiratory disease. These studies are more appropriately designed and undertaken by public health experts and epidemiologists, not engineers or geologists.
25. It is noted that ECAN did inform other parties (paragraph 40 of the S42A Report) of the Road Metals resource consent application, including the Christchurch District Health Board (CDHB), although they were not limited notified as affected parties. The CHDB replied, with Matt Willoughby of the CDHB raised concerns regarding the separation distance between the quarry and nearby properties. They recommend a separation distance of 500m in order to comply with Rule 7.3 (permitted activity) of the Canterbury Air Regional Plan. They state that if the applicant is not willing to apply a 500m set back to the boundary of residential properties, then the application should be declined. Although this CDHB submission came from the public health

authorities, it would appear that their recommendations have been discounted. To me this begs the question of why ECAN sought the views of the CDHB in the first place.

Setbacks as a mitigation measure for adverse effects

26. On the ECAN website “Notification of quarry consents” (dated 16 March 2018), it is stated under “What guidelines do you use to assess the effects of quarry dust?” that “In the absence of New Zealand specific guidelines, Environment Canterbury applies the Environmental Protection Authority (EPA) Victoria guidelines for recommended separation distances from sensitive receptors for industrial residual air emissions”.
27. Under “What do the EPA guidelines state?” it is stated that: (i) “The EPA Victoria guidelines recommend a separation distance of 500 metres between sensitive receptors and “quarrying, crushing, screening, conveying and stockpiling of rock with respirable crystalline silica”; (ii) “Crystalline silica is a naturally occurring component of most rock types, including greywacke. Fine dust containing respirable crystalline silica (RCS) can be generated by crushing and screening processes and from stockpiles of crushed material. Emissions of RCS from other sources, like truck movements or aggregate extraction, are likely to be relatively low”; (iii) “Given the EPA’s recommended 500 metre separation applies where there are significant emissions of RCS, Environment Canterbury (with advice from independent air quality experts) typically applies a 250 metre separation distance for situations where only extraction and trucking of native material occurs, as this is less likely to generate appreciable levels of RCS”.
28. It is safe to assume that ECAN’s “independent air quality experts” are T+T, which is essentially confirmed by Section 5 of Appendix 2 of ECAN’s S42A report.
29. In paragraphs 5.16 of Appendix 2, T+T discusses the applicability of the EPA Victoria recommended separation distance of 500 m for “*quarrying, crushing, screening, conveying and stockpiling of rock with respirable crystalline silica*”. “*As crystalline silica is naturally occurring in most rock types, I understand that almost all quarrying activities will generate some level of RCS as a component of dust. Therefore, the absence of any explanation as to when EPA Victoria considers a particular activity is with crystalline silica*” makes it difficult to evaluate its relevance to this proposal.” It would appear to me that a simple phone call by T+T to the Victoria EPA would have clarified this doubt.
30. In paragraph 5.17 of Appendix 2, T+T state that “*My interpretation of the EPA Victoria guidance is that it recommends a 500 m separation distance in circumstances where there is appreciable crystalline silica present in the aggregate resource, and where quarrying activities include blasting, crushing and screening processes, and stockpiling and loading out of crushed material. In my opinion it is not sensible that*

500 m would also be an appropriate separation distance where quarrying activities are limited to mechanical extraction and transport of pit-run material, as there is significantly lower potential to generate dust than if the activities include those listed in the EPA Victoria recommendation ". My reading of the relevant table (page 9) of the Victoria EPA Publication 1518, Recommended separation distances for industrial residual air emissions (March 2013) is that there is no qualification of activity where RCS is present, i.e. with RCS present with quarrying, the recommended separation distance is 500 metres (attached).

31. In paragraph 5.18 of Appendix 2, T+T conclude that "*Taking into account the nature of the proposed quarrying activities and their potential to generate dust (including RCS), I consider that 250 m is a reasonable basis for identifying sensitive activities for more detailed assessment.*" There is no validation offered for this conclusion that 250 metres is a valid separation distance, especially when it has already been conceded that RCS will be present through the proposed activities of this resource consent application.
32. Lastly, all of the above is probably moot anyway as ECAN are not using separation distances, as would logically be expected, as a physical distance buffer to mitigate adverse effects of an activity, but purely as a means "*to identify potentially affected owners and occupiers of properties for limited notification. If effects on properties within this distance are acceptable, there is not expected to an adverse effect on properties beyond that distance.*"; ECAN website, *Notification of quarry consents/ Does the separation distance matter for notification?* This use of separation distance appears totally counter-intuitive as a risk management tool to me.

Economic benefits of the proposal

33. In his statement of evidence as company owner, Murray Francis states that "*The value of the material at this site is significant. It will provide an estimated 750,000 bank cubic metres (BCM) of aggregate, with an estimated maximum extraction of 250,000 BCM per year.*" (paragraph 26) and "*That is a significant resource in terms of Christchurch's future aggregate supply.*" (paragraph 27).
34. In his statement of evidence, Michael Copeland states that "*For the period 2014 to 2041, greater Christchurch is forecast to have total aggregate demand of 180 million tonnes, aggregate supply from existing land based quarries and river supply of 140 million tonnes and therefore a shortfall of 40 million tonnes. For Christchurch City, a shortfall of 45 million tonnes is projected.*" (paragraph 9.2).
35. If my calculations are correct. 750,000 BCM is 750,000 tonnes so the amount of aggregate to be produced by the proposed Road Metals expansion is only 1.7% of

Christchurch City's projected shortfall of 45 million tonnes of aggregate. I would therefore challenge the statement that the proposed Road Metals expansion is actually a significant resource in terms of Christchurch's future aggregate supply and at 1.7% of projected demand would easily fall within the margin-of-error implicit with such forecasting models.

36. In my opinion, little else of tangible specified benefit related to this specific Road metals application, as distinct from broad generalisations, has been raised, apart from protecting the existing sunk assets of Mr Francis in the wider Road Metals site. I'm unsure whether that is a consideration that the consenting authority is obliged to take into account when assessing this application.

37. I'm unsure whether the "test" that the Commissioners need to apply to this resource consent application under the various subsections of S104 of the RMA includes whether the benefits of the proposal outweigh the adverse effects resulting from the proposal. In my opinion, the benefits of the proposal are minor but the adverse effects resulting from the proposal are more than minor.

Summary

38. Based on the points raised in my submission above, I wish the consenting authority to decline this resource consent application in full.

End

Recommended separation distances for industrial residual air emissions

| | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------|-------------|--|
| Rendering and casings works | Abattoirs, knackeries or poultry processing works involving rendering | >200 tonnes per year | 1000 | |
| | | <200 tonnes per year | (See note*) | |
| Seafood | Processing of seafood | >200 tonnes per year | 500 | |
| | | <200 tonnes per year | (See note*) | |
| Smallgoods | Preserving or drying smallgoods | >200 tonnes per year | 500 | |
| | | <200 tonnes per year | (See note*) | |
| Vegetable oil and fat production using solvents | Producing edible oils or fats using seed crushing, solvent extraction or fat deodorising | >200 tonnes per year | 500 | |
| | | <200 tonnes per year | (See note*) | |
| *Note: For food and beverage manufacturing producing less than 200 tonnes of product per year, no separation distances are specified. For these cases, EPA recommends there is no visible discharge of dust or emissions of odours offensive to the senses of human beings, beyond the boundary of the premises. | | | | |
| Mining and extractive industry | | | | |
| Open cut coal mine | Harvesting, crushing, screening, stockpiling and conveying of coal | | 1000 | |
| Gas and oil extraction | All natural gas or oil production wells including tight, shale and coal seams | | 250 | |
| Mine for other minerals | Crushing, screening, stockpiling and conveying of other minerals | | 250 | |
| Quarry | Quarrying, crushing, screening, stockpiling and conveying of rock | Without blasting | 250 | |
| | | With blasting | 500 | |
| | | With respirable crystalline silica | 500 | |
| Miscellaneous manufacturing | | | | |
| Manufacture of products using fibreglass and resin | Manufacturing products using fibreglass or resin | >250 tonnes per year | 250 | |
| Manufacture of tanned leather and artificial leather products | Processing leather by tanning or dressing | >250 tonnes per year | 250 | |
| Printing | Printing works emitting volatile organic compounds | Emitting >100 kilograms per day | 500 | |
| Storage of wet-salted and unprocessed hides | Storing packaged wet-salted or unprocessed hides | | 250 | |
| Non-metallic mineral products | | | | |
| Asphalt plant | Production of asphalt | >100 tonnes per week | 500 | |
| Brick, tile, pipe, and refractory manufacturing | Production of bricks, tiles, pipes, pottery goods or refractories, processed in dryers or kilns | >10,000 tonnes per year | 250 | |
| Cement manufacturing | Production of cement from clays or limestone in either a furnace or a kiln to produce cement clinker | <5,000 tonnes per year | 250 | |
| | | 5,000 to 150,000 tonnes per year | 500 | |
| | | >150,000 tonnes per year | 1,000 | |
| Cement clinker grinding | Grinding of cement clinker, clays or limestone materials | <150,000 tonnes per year | 250 | |
| | | >150,000 tonnes per year | 500 | |