

Before the Independent Hearing Commissioners
at Christchurch

under: the Resource Management Act 1991

in the matter of: Applications by Fulton Hogan Limited to establish a
quarrying operation at Templeton

by: **Brackenridge Services Limited**
Submitter

Statement of evidence of Dr Richard Porter

Dated: 21 October 2019

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STATEMENT OF EVIDENCE OF RICHARD PORTER

INTRODUCTION

- 1 My full name is Richard John Porter.
- 2 I am a registered medical practitioner and am vocationally registered in Psychiatry. I am a member of the Royal College of Psychiatrists (UK) and hold a Certificate of Specialist Training in General Adult Psychiatry from the Royal College of Psychiatrists. I have practised in psychiatry since 1991 and as a Consultant Psychiatrist since 1999. Since 2009 I have specialised in the treatment of people with intellectual disability including autistic spectrum disorder. I am currently a Consultant Psychiatrist with Canterbury District Health Board, specialising in intellectual disability. I am Professor of Psychiatry and Head of the Department of Psychological Medicine at University of Otago, Christchurch. In this role I have published over 150 scientific papers regarding the treatment and assessment of mental disorders and in particular neuropsychological impairment in these disorders.

CODE OF CONDUCT

- 3 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the code of conduct for expert witnesses contained in part 7 of the Environment Court Practice Note 2014. I have complied with it in preparing my evidence. I confirm that the issues addressed in this statement of evidence 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.

SUMMARY

- 4 Sensitivity to sensory experiences is a feature of Autism Spectrum Disorder (*ASD*) and was added to the diagnostic criteria for *ASD* in the latest edition of the American Psychiatric Association classification (*DSM5*). Noise is a frequent hypersensitivity and people with *ASD* sometimes describe noise which is comfortable to others as being intensely distressing and even "painful".
- 5 There are numerous reports of adverse effects of noisy environments or background noise resulting in distress and distressed behaviour in *ASD*.
- 6 Brackenridge Services have in their care a number of people who suffer from varying levels of *ASD* who are likely to become more distressed and have a reduced quality of life should they be subject to an increase in ambient noise around their homes.

SENSORY SENSITIVITY IN AUTISM SPECTRUM DISORDER

- 7 Evidence regarding sensory sensitivity in ASD comes from two main sources- accounts written by people with ASD and information from caregiver questionnaires, several of which have been developed to investigate and quantify this well described phenomenon.
- 8 The evidence shows that sensory sensitivities occur in all sensory modalities in ASD. These occur in between 30% to 100% of people with ASD (Baranek et al 2005). Although these sensitivities do improve with age, they are present to a significant extent in adults (Kern et al 2006, Leekam et al 2007). Many accounts of altered sensitivity describe both hyper- and hypo-sensitivity to sensory stimuli – often fluctuating between the two extremes (Jones, Quigney, & Huws, 2003). These sensitivities are in all modalities including auditory, and noise can be perceived as actually painful. Lack of control over the sensory stimuli is reported to be particularly distressing (Robertson and Simmons 2015). High functioning people with ASD can give clear accounts of this. For example, one person described the sound of a paper bag popping as “terrifying”. Other individuals have described a “fear” of vacuum cleaners and electrical tools. Adults with ASD report being unable to “get used to” noises as other adults do (Robertson et al 2015). Patients with intellectual disability and ASD are often unable to communicate their distress related to sensory stimuli. They may react by becoming outwardly distressed and react physically, for example with aggression.
- 9 Objective studies have indicated a number of abnormalities in the processing of sounds by people with ASD (O’Connor 2012). For example, people with ASD perceive sounds to be louder than those without ASD such that at a lower intensity of sound they experience discomfort (Rosenhall et al 1999).

EFFECTS OF STIMULI ON MENTAL STATE AND BEHAVIOUR

- 10 In people with ASD, it is reported that sensory stimuli, including noise, have significant effects on mental state. It is difficult to produce scientific evidence that this is the case since there is no ethical experimental design which could subject people with ASD to high levels of noise and then examine the effects of this. However, there are countless reports, represented on support group websites, attesting to the increased tendency of people with ASD to have “meltdowns” in the face of increased noise stimuli.
- 11 Clinically, the degree of stimulation in an environment is always considered in an assessment of a person with ASD. Indeed, a specific sensory assessment is often carried out. This is because the degree of stimulation in sensory modalities including noise, and the sensitivity of a person to this is an important factor in determining mental state and behaviour in ASD.

CONCLUSION

- 12 An increase in background noise around the homes of people with ASD, cared for by Brackenridge Services Limited, is likely to have a detrimental effect, on their wellbeing and behaviour.

Dated: 21 October 2019

Richard Porter

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