THE AGGREGATE & QUARRY ASSOCIATION OF NZ

SUBMISSION ON THE NATIONAL ENVIRONMENTAL STANDARDS FOR AIR QUALITY

July 2020

Introduction

The Aggregate and Quarry Association (AQA) is the industry body representing Construction Material companies which produce an estimated 45 million tonnes of aggregate and quarried materials consumed in New Zealand each year.

Funded by its members, the AQA has a mandate to increase understanding of the need for aggregates to New Zealanders, improve our industry and users' technical knowledge of aggregates, and assist in developing a highly skilled workforce within a safe and sustainable work environment.

Background

Accessing, extracting, processing, and transporting aggregate (crushed rock, gravel and sand) is needed for the construction of infrastructure in New Zealand. A wide range of industrial minerals are also produced in New Zealand including clay, limestone, perlite, halloysite, bentonite, zeolite, silica, dolomite and serpentine.

The quarry industry works collaboratively with local communities and councils to reduce our environmental impact and meet legal requirements of environmentally sustainable operations. PM_{10} and $PM_{2.5}$ levels of particulate matter generated by quarrying activity are generally low with $PM_{2.5}$ a minor component of the PM_{10} concentrations. Typical $PM_{2.5}$ fraction in quarry generated particulate matter is between 14% - 20% of measured PM_{10}, and generally well below background measurements of dust generated from other point sources.

We make the following submission in relation to the National Environmental Standards for Air Quality.

Introducing $PM_{2.5}$ as the primary regulatory tool to manage ambient particulate matter

We generally agree that PM_{10} is not the best indicator of the health impacts of particulate matter pollution. The proposed $PM_{2.5}$ standard should replace the PM_{10} standard as the primary standard for managing particulate matter, with World Health Organisation (WHO) guidelines used to set standards.

Reducing exposure to $PM_{2.5}$ gives the greatest benefit in terms of human health impacts and therefore should be the primary measure of air quality.

Polluted airsheds and resource consents

In polluted airsheds satisfying Regulation 17 requires fine grained and compelling analysis. The methods used to predict the contribution of point source discharges are fit for purpose in this respect.

However, experience has shown this is not the case for the fugitive discharges from quarry and extractives activities. Disagreement between experts on which methods should be used to predict the likely contribution of these types of discharge is common, as is disagreement on how effective proposed mitigation measures will be in preventing fugitive dust and how such measures should be accounted for in the predictions. The methods themselves also do not seem well suited to characterising the precise contribution a quarry will make to ambient particulate concentrations. Such disagreements result in resource consent applications being inadvertently hamstrung by a piece of legislation which is designed to, and primarily focused on, managing point source discharges.

Given the low levels of fugitive $PM_{2.5}$ dust generated by quarries and extractive industries, compared to point sources within polluted airsheds, resource applications for extractives operations should be exempt from the requirement of Regulation 17 to decline or offset new resource consent applications for $PM_{2.5}$ discharges in polluted airsheds.

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