

Submission from the AQA on the Greater Christchurch Spatial Plan

July 2023

Introduction

The Aggregate and Quarry Association (AQA) is the industry body representing quarrying companies which produce 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.

We would like to thank the councils for the opportunity to comment on the [draft Greater Christchurch Spatial Plan](#) (the draft plan).

The aim of our submission is to highlight the role aggregates will play in Christchurch's growth and to reiterate the need for the councils to allow for quarries in their planning.

Key Points

- Aggregate is an essential ingredient in the building of infrastructure, roading and housing as well as climate change adaptation. It will be needed to achieve the growth and development of Greater Christchurch as anticipated in the draft plan.
- We are concerned that the plan does not address the need for new quarries or where they will be located.
- In order to future proof Greater Christchurch, land for existing and future aggregate extraction activities must be adequately identified and protected from encroachment of non-compatible land uses.

The Importance of Aggregates in Greater Christchurch

Aggregate (crushed rock, gravel and sand) is an essential resource for the construction of housing, roading projects and other transport infrastructure. It is used for general construction – in concrete, asphalt, mortar and other building products.

Due to the unprecedented levels of construction and infrastructure development activity, partly due to the rebuild, aggregate is increasingly in short supply in Christchurch as well as other parts of New Zealand.

Aggregate deposits are 'location specific' – limited in quantity, location and availability. They can only be sourced from where they are physically located and where the industry is able to access them.

This means it is important that the location of aggregate resources are identified by councils and access is not inadvertently shut off through land development and council planning.

Greater Christchurch quarries have greatly increased production in recent years to meet the needs of the rebuild. We are conscious that this has caused some dust and noise concerns from a small number of residents living near some quarries. In response to these concerns the Canterbury quarrying sector developed their own Code of Practice giving some self-governance on managing these potential impacts.

Greater Christchurch has a mix of riverbed and land-based quarries. There are limits on the amount of aggregate that can be removed from the region's rivers, in order to manage flood mitigation, and more land-based quarries will be needed.

The Draft Greater Christchurch Spatial Plan

We are concerned that insufficient attention has been given in the draft plan to the role aggregates will play in achieving the anticipated growth and to ensuring that land for existing and future aggregate extraction activities is available, adequately identified and protected from encroachment of non-compatible land uses.

The latest projections from Statistics New Zealand indicate Greater Christchurch's population will grow from a population of approximately 530,000 to more than 700,000 by 2051.

170,000 more people means another 77,000 more dwellings will be required. These will consume 19 million tonnes of aggregate alone, on top of existing demand and the infrastructure required to support the population growth.

A number of Greater Christchurch quarries are coming to the end of their life and replacements need to be established to meet Greater Christchurch's growing needs.

The region needs more than 50 hectares of area to be quarried each year to meet demand – about five years supply from the new quarries if all are approved.

As stated above, aggregates can only be sourced from where they are physically located and where the industry is able to access them. At the same time, quarried products are high-volume, low-cost products and therefore need to be close to where the product is to be used. Too far away means significant expense of transporting quarry materials (which is passed on to consumers) as well as congestion and CO₂ emissions. The cost of aggregate doubles when transported 30 kilometres from its source. Too close to residential areas brings reverse sensitivity issues due to the nature of extractive industry operations including noise, vibration and dust. Residential and

industrial development areas should ideally be as close as reasonable to identified areas of aggregate.

Highly Productive Land

In a number of places, the draft plan refers to the need for highly productive land to be protected referring to food production.

The same should apply to aggregate extraction land which is equally highly productive, in fact more so than farm land – quarrying generates many times more revenue per hectare than dairy, beef/lamb or horticulture.

Just as “highly productive soils have been lost to urban development and land fragmentation” (page 61), so too has quarry land been lost over the years as residential areas have expanded. It is essential that the spatial plan does not allow potential quarry land to be sterilised in this way in the years ahead.

Map 12 on page 64 shows the location of highly productive soils. We recommend the councils work with GNS Science to ascertain potential quarry areas and produce a similar map, so the public have a greater awareness of where these are.

We note that quarrying is part of the primary production definition in the Nation Planning Standards which supports this argument.

There is also reference in the draft plan, e.g. page 31, to sufficient land being provided for commercial and industrial uses. But again, not for quarries.

Rehabilitation

Quarries have a finite life – they are not there permanently. Once the aggregate has been extracted the land is able to be returned to its original use or used in a variety of other ways. Often the land is turned into community facilities.

The Isaac Conservation and Wildlife Trust, and Halswell Quarry are good examples of this in the Grater Christchurch area.

It is not inconceivable that housing and other developments can occur on and around former quarry land that has had the aggregate extracted as has occurred in other parts of the country (for example Stonefields in Auckland).

Climate Change

We support the thrusts of “Opportunity 2” on making communities resilient to the impacts of natural hazards and climate change. It is important to note the central role aggregates have in strengthening resilience to these.

Rock is needed for flood protection and to adapt to sea level rise and coastal erosion through strengthening of sea walls etc. It will be needed to repair damage to coastal infrastructure and to make infrastructure generally more resilient to greater intensity storms and extreme weather events.

Sand and aggregates will play a vital role in retreating from the effects of climate change, including the relocation of communities, whether in preparation for or response to climatic events as key components of the construction sector in the form of concrete and other construction materials.

Wayne Scott
Chief Executive Officer
[Aggregate and Quarry Association](#)
wayne@aqd.org.nz
021 944 336