

Submission from the AQA to the Environment Committee on the Inquiry into climate adaptation

October 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 Environment Committee for the opportunity to make a submission on the [Inquiry into climate adaptation](#) (the Inquiry).

Our submission focuses on the crucial role the aggregates sector will play in strengthening our resilience to a changing climate and to the “managed retreat” as it needs to occur.

Key points

- Aggregates will be needed in growing quantities to increase resilience to resist extreme weather events.
- To meet this demand, it will be essential that New Zealand's environmental planning and regulatory environment is accommodative of aggregates.

Submission

We strongly support the committee's focus on climate adaptation. It is important that the country, public and private sector, plans ahead and prepares for a changing climate.

The focus of government policy and actions (local and central government) over the last three decades, has been on mitigation, i.e. New Zealand's contribution to reducing global emissions, and not enough on the need to plan for a changing climate. This inquiry is a welcome contribution to New Zealand's climate change response.

What is aggregate?

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.

Aggregate is also important for increasing resilience and adapting to extreme weather events and climate change.

The impacts of climate change and the role of aggregates

The projected impacts of climate change on New Zealand are well known. They include increased intensity and frequency of extreme weather events and sea level rise.

Aggregates and other minerals will play a vital role in protecting, accommodating and retreating from the effects of climate change.

Aggregates are needed to make infrastructure more resilient to resist extreme weather events. They will be required for fill to raise land levels and to build the structures that will protect against the ravaging effects of stronger storms, sea level rise and increased flooding on our infrastructure, communities, and ecosystems.

The flooding and coastal erosion that threatens our infrastructure and livelihoods is already being protected by quarried rock and other aggregate in the form of seawalls. New and strengthened seawalls and other such protections made from rock and/or steel-reinforced concrete will be required. Seawalls stabilise coastal roads and rail corridors and provide enhanced community facilities.

To the extent climatic events overcome these protections, the damage to homes and infrastructure will again require aggregates to fix and replace the damage. Where climate impacts require relocation or retreat of communities, whether in preparation for or response to climatic events, aggregates, as key components of the construction sector, will be at the fore in the form of concrete and other construction materials.

It's important to note, sand, limestone and aggregates are essential to make concrete.

Not only will aggregates be needed to help contain the impacts of climate change, access to aggregates will be disrupted by these impacts in many instances. For example, the resulting reduction in river flows will reduce the quality and quantity of aggregate deposits in rivers. The reduced aggregate from this source means there will be more pressure on hard rock, land based, aggregate sources.

Aggregate supply is vulnerable to disruption as a result of extreme weather because of its bulk and the difficulties around transportation even in normal conditions.

Aggregate shortages

Aggregate supply is constrained in New Zealand and the country is already experiencing shortages in many places. Over the coming years demand for aggregates is expected to increase as New Zealand's population and economy grows which will further exacerbate the shortages. The need for climate adaptation and / or managed retreat will create even more demand for aggregate and stretch the supply even further.

Increased competition for limited aggregate supply means there will be increasing shortages for various grades and types of aggregate product. For example, the source rock of ballast for the rail network is the same rock quality required for seawalls and flood mitigation. This competing and increased demand could disrupt the path towards New Zealand's climate adaptation or curtail existing building and infrastructure projects around the country.

The regulatory environment

To facilitate the production of sufficient quantity to meet these competing demands, it will be essential that New Zealand's environmental planning / regulatory environment is accommodative of aggregates.

A key feature of the sector, that the regulatory environment needs to allow for, is the fact that mineral and aggregate deposits are finite and can only be sourced where they are physically located. This means there is a need for careful planning by local authorities to ensure sites suitable for aggregate extraction are protected and access must not be inadvertently shut off.

National direction instruments under resource management regulations, whether the National Planning Framework, being developed under the National Built Environment, or the existing National Policy Statements, must provide for the protection of aggregate resources and enable access to them.

Conclusion

We welcome engagement with the Select Committee and the government on the role the sector can play in climate adaptation.

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