

Submission from the AQA on the Climate Change Adaption Plan

June 2022

Introduction

The Aggregate and Quarry Association (AQA) is the industry body representing construction material companies which produce 50 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 welcome the opportunity to comment on the Ministry for the Environment's National Adaptation Plan (NAP) and consultation document, [Building a Climate Resistant New Zealand](#).

We strongly support the adoption of a National Adaptation Plan (NAP) for New Zealand. 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, ie New Zealand's contribution to reducing global emissions, and not enough on the need to plan for a changing climate. This document is a long overdue contribution to New Zealand's climate change response.

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. And the need for the regulatory environment to be accommodative of mineral extraction to facilitate this.

While we accept the document is a high level, direction-setting plan, we are surprised to see no references to our sector anywhere within the consultation document or the NAP, in connection with climate adaptation.

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, to use the terms in the model described on page 9 of the consultation document.

Aggregates are needed to make infrastructure more resilient to resist extreme weather events. They will be required 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 sea walls and other such protections made from rock and/or steel-reinforced concrete will be required. Sea walls 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 effects of climate change, access to them will be disrupted by climate change. For example, drought will not only impact on electricity generation, as specified on page 8. 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.

The regulatory environment

Aggregate and mineral supply is constrained in New Zealand and the country is already experiencing shortages in many places. Demand for aggregates is expected to increase as New Zealand's population and economy grows over the coming years which will further exacerbate the shortages. These forecasts do not incorporate the need for climate adaptation or managed retreat which will create even more demand 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. This could disrupt the path towards New Zealand's climate adaptation or curtail existing building and infrastructure projects around the country.

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

The National Planning Framework, being prepared under the resource management reform for example, must protect and enable access to aggregates. The Adaptation Plan needs to incorporate this goal as one of its actions.

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.

Other comments on the documents

Infrastructure / Physical Assets

The Draft Plan has a significant section on infrastructure and makes several references to The New Zealand Infrastructure Strategy, completed recently by the Infrastructure Commission, Te Waihanga. This strategy is important for the adaptation plan because of the need to strengthen the resilience of our infrastructure.

We note that the strategy makes several mentions of the importance of aggregates and steel to the provision and renewability of infrastructure, and the need for careful planning by local authorities to ensure sites suitable for aggregate extraction are protected, such as through zoning.

In particular, Recommendation 28 of the strategy which emphasises the need for security of supply of essential materials to build, renew and maintain infrastructure and specifically mentions aggregate, bitumen, cement, concrete and steel.

We note that on page 65 of the Draft Adaptation Plan, under Critical Action, 'Develop a methodology for assessing impacts on physical assets and the services they provide', there is a discussion on the risks of climate change on physical assets.

The impact that climate change is likely to have on aggregate demand and supply, and its impact these supply chain constraints are likely to have in turn on infrastructure, should be part of this.

Rail Investment

On page 68 under Supporting Action - 'Progress the rail network investment programme', the Draft Plan refers to the need for long term investment in rail. It should be noted that increasing the rail network will require, among other things, significant quantities of ballast. The source rock of ballast is the same rock quality required for sea walls and flood mitigation. This again raises the prospect of competing and increased demand for aggregate, and again emphasises the need for careful planning to ensure the supply is not exhausted.

Disrupted Supply Chains

On page 86, there is discussion on the disruption of supply chains as a result of extreme weather and other climate change impacts. This also applies to aggregate supply which is, itself, particularly vulnerable to disruption from these climate impacts because of its bulk and the difficulties around transportation even in normal conditions.

Freight and Supply Chain

In relation to this, on page 88, under the Critical Action - Deliver the National Freight and Supply Chain Strategy there is a discussion on the need to ensure New Zealand's freight and supply chain system is resilient to climate change effects. We support the delivery of this strategy and we note in this context that the aggregate supply chain is not only vulnerable to the effects of climate change, but is, as discussed earlier, part of the solution to climate change adaptation. We recommend therefore that it be considered as part of this Strategy.

Conclusion

We welcome engagement with the Ministry for the Environment and the Government on the role the sector can play in climate change adaptation, as the NAP is finalised.

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