

Will your bach or business be underwater in 100 years?

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24 June 2021

As climate change brings higher temperatures, rising sea levels and accelerated coastal erosion, tens of thousands of coastal homes and baches in New Zealand could be left at risk and uninsurable. Despite the best efforts of governments around the world to reduce emissions, the reality is that coastal hazards and the risk they pose to people, communities and the environment will remain a pressing issue.

In February 2021, the Government announced its intent to repeal and replace the Resource Management Act 1991 with three new acts governing land and the environment. One of these acts is set to be the Climate Change Adaptation Act, which is signalled to address the complex issues associated with managed retreat from the coast, including the funding and financing of that process.

While the details of the proposed act are still under wraps, councils, businesses, and homeowners will be looking to the new legislation for greater certainty and direction on the longer-term risk management of coastal hazards for New Zealanders.

Internationally, many countries rely heavily on “hard protection” structures to hold back the sea. The Netherlands have used sea walls for centuries, while Japan is currently building structures as high as 14 metres and 400 kilometres in length to protect its coastal communities.

In New Zealand hard protection is discouraged as a matter of national policy. The New Zealand Coastal Policy Statement 2010 (NZCPS) saw a shift in coastal hazard management away from hard protection toward promoting and encouraging alternative strategies.

The NZCPS requires local authorities to identify areas that could be affected by coastal hazards over at least 100 years. They must then implement a planning regime that avoids development or change in land use that increases the risk of harm and adverse effects from coastal hazards, in these at-risk areas. At the same time, they are required to encourage any development or change in land use that reduces the risk.

While the NZCPS recognises that hard protection may be the only practical means of protecting significant existing infrastructure and built resources, other strategies are promoted. There is strong policy support for protecting, restoring and enhancing natural defences that protect coastal land uses and sites of significant biodiversity, cultural, historic heritage or geological value. Natural defences can include beaches, wetlands, coastal vegetation and dunes. New Zealand has seen several initiatives to bolster natural defences including beach sand replenishment, sand dune protection, and vegetation planting along the coast. There is no policy support at all for sea walls outside areas of significant existing development.

Adapt or managed retreat

In some locations, none of these strategies may be sufficient to protect homes, amenities and infrastructure, particularly in 100 years. Responses beyond protection mechanisms, such as adaptation or managed retreat, are options for existing development in hazard prone areas.

Adaptation involves making changes to ensure existing assets are more resilient to the risks posed by natural hazards. Examples include building on poles and stilts to lift floor levels, innovative flood-proofing solutions such as designs and materials that allow seawater to enter during a storm event and then drain naturally with no damage to the structure or redirecting flood waters to avoid existing development.

Managed retreat is to remove or relocate existing development and infrastructure from at risk areas over time. As the policy direction is only to encourage managed retreat, there is significant uncertainty about whether managed retreat ought to be implemented and enforced at all. It is also unclear who is responsible for making decisions, when managed retreat might be appropriate, what tools are available to make managed retreat a reality, and ultimately who is to pay for everything that is involved in the process. Even then we cannot simply relocate all existing communities, infrastructure and services to other locations.

Guidance in these areas will be essential in the new Act.

No new development in at-risk areas

If you are thinking about building a new holiday home on the beach you might have to think again or plan for a longer walk to the sea. When it comes to new developments the main thrust of the NZCPS is to locate new developments away from coastal hazard areas. As desirable as that patch of land may be, if it is at risk within the next 100 years you may not be able to build there.

The NZCPS also presents challenges for our roading and three waters infrastructure which are often located in the coastal environment.

There are options that could enable new development in coastal areas while reducing the risk of harm and adverse effects from coastal hazards, but in some instances the relevant NZCPS directions are somewhat at odds. For example, reclamation could raise up new land along New Zealand's coasts to unlock new land for development and lower exposure to coastal hazard risk for existing developments. While reclamation could reduce risk for both new and existing development, such an approach can be inconsistent with Policy 10 of the NZCPS which directs councils to avoid reclamations unless strict criteria can be satisfied. The high threshold set by the NZCPS means reclamation is unlikely to be an available option except in rare situations.

To be able to plan and move forward, the new Act will need to give guidance on engagement with the community and decision-making regarding responses to coastal hazard risks for existing development. It will need to identify the options that may be available to address coastal hazard risks and guidance as to when they may be appropriate.

When it comes to managed retreat we need to see viable funding and compensation mechanisms. This includes qualifying criteria, a clear delineation of responsibility for funding and responsibility for the works.

Climate change is here. The threat to homes, property and infrastructure is real. Everyone affected is looking to the Government for direction on the next steps.

This article was written by [Cedric Carranceja](#) and [Jenna Silcock](#), members of our [national resource management practice](#). This article is part of a series themed around 'decarbonising the economy through infrastructure' which will see sector experts from across [Buddle Findlay](#) address important topics that impact our clients and New Zealand. Up next will be an article by [Tom Bennett](#) and [Ed McGimpsey](#) from our [national construction practice](#). Make sure you're [subscribed](#) to receive this and future articles in the series.

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