

Article by Geraldine Murphy, ICW Spokesperson on Seismic Matters
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Earthquake-prone legislation – it is time for a rethink

Geraldine Murphy. 05:00, Jul 18 2022

Geraldine Murphy is spokesperson on seismic matters for the residents' association, Inner City Wellington.

OPINION: Owners of commercial and publicly-owned buildings, including those who have yet to experience the impacts of the earthquake-prone legislation, may find the recently released [Seismic Risk Guidance for Buildings from MBIE](#) useful.

However, it will not address the wider issues with the legislation. It will also not address the barriers facing many apartment owners in earthquake-prone buildings now or in the future.

The guidance was issued following recent news reports about the assessment of buildings generally and the precast floors issue specifically, but the wider issues have existed for many years. Inner City Wellington (ICW) continues to lobby our MP and the building and construction minister for a review focused on residential buildings.

Now, engineers are starting [to question the impacts of the legislation](#) that the profession had a substantial role in creating and influencing. We set out the four key reasons why a review is urgently needed.

Firstly, the MBIE cost-benefit analysis (CBA) concluded the costs of strengthening far exceeded the benefits. Commissioned in 2012, it was ignored for the 2016 legislation changes. The issue with the CBA was [highlighted recently](#) and the amendments to the legislation should be reversed. But it needs to go further.

Secondly, the costs being faced by apartment owners far exceeded those used in [the cost-benefit analysis](#), so the case for this retrospective compliance burden is further weakened. The estimated total number of earthquake-prone buildings used for the 2012 CBA has been reduced by around 7000 buildings, based on MBIE reports, further reducing the “benefits”.

Residential buildings are a very small proportion of the affected buildings, but the financial and wellbeing impacts of compliance costs on these owners is substantial. ICW has provided officials and ministers with evidence of compliance costs and barriers faced by apartment owners.

Thirdly, there is no end point to this policy. No matter how new the apartment building, at some point there will be new standards, new knowledge about earthquakes, new technologies and the building may be deemed potentially earthquake-prone, and then earthquake-prone.

Despite this knowledge, there isn't a move to property resilience in building standards because of further increasing housing costs. Instead, the cost is passed to future owners to bear when the building is deemed earthquake-prone.

[Aurecon](#), the engineering consultant which prepared a report on the Ministry of Education building, noted that the future increase in the hazard factor for Wellington “potentially may increase the standard required for existing buildings”. Apartment owners, along with other owners, who have completed strengthening or are in the process of doing so, may face another round.

There is no assurance that the current link to the building standards in place on July 1, 2017, will be honoured.

Fourthly, there needs to be a debate about [“quake risk management”](#) as suggested by structural engineer David Hopkins. ICW agrees. MBIE has said an earthquake-prone building is [estimated to have an annual fatality risk of between 1 in 40,000–100,000](#).

Driving a car in New Zealand is estimated to carry a fatality risk of 1 in 20,000. Society doesn't demand speed delimiters or alcohol detectors in every car to mitigate the risk of road deaths caused by a “few” drivers every year. No other seismically active jurisdiction has earthquake-prone building policy settings like New Zealand.

[Structural engineer Richard Sharpe has written](#): “It is all about the relative risk of earthquakes and society's view (via regulations) of acceptable risk.” The debate on quake risk management must recognise the difference between commercial and public buildings, and apartment buildings, and the different users and owners of those buildings. Is society prepared to pay towards the cost of avoiding the risk?

Why do some homeowners have a choice to accept this risk and not apartment owners?

We need to rethink our policy settings – informed by the reality of the current policy.

Geraldine Murphy,
ICW Spokesperson on Seismic Matters