

The Panel Discussion was chaired by Ken Boam, Wellington Regional Manager at Opus. In addition to the presenters, the panel was joined by Peter Higgs.

**Peter Higgs**

BE(Civil), FIPENZ, CPEng, DipBusMgt  
Engineering and Works Manager, Gisborne District Council

Prior to his role at the Gisborne District Council, Peter had a similar position at the Southland District Council. He has public and private sector experience, including international projects in the Philippines and Indonesia.

Peter is an alternate Group Controller and carried out that role during the latter half of the Gisborne Earthquake emergency declaration in December 2007. He is a member of the CDEM Co-ordinating Executive Group (CEG) and has also been involved in setting up the Engineering Lifelines Group for Gisborne.

**Ken:**

I would now ask all of the speakers to join me on the platform here and then we will have a panel discussion on what we've heard this afternoon.

You will have noticed that we've grown by one extra person. I'd like to introduce Peter Higgs, the Engineering and Works Manager from Gisborne District Council. I think Peter will provide valuable insight into the events and the recovery operations in Gisborne.

So perhaps I could kick this off with a question to you, Peter. What were the biggest challenges for you and the Council following the event?

**Peter:**

I suppose the biggest issues for us have been pretty much canvassed by the speakers. Our biggest frustration has been the time it has taken for recovery, which can be attributed to both insurance issues and the requirement for Council to have high standards. We were aiming for two-thirds in terms of the design code, so there has been a lot of frustration with the commercial area. It has been two years, or next week it will be two years, since the earthquake. We've still got three or four buildings which have not had any applications lodged for upgrades or repairs. That means that we've got to take some measures if those are not upgraded in terms of dangerous buildings, which is the last thing we want to do. And it's a bit frightening that the earthquake was relatively minor with a very concentrated area of damage in terms of the commercial area. We were able to contain rather than barricade the whole CBD, we were able to contain each building. Our major concern is a larger earthquake as it's taken us two years to recover from this minor one.

**John:**

I've got a question for Peter. Why did the Gisborne District Council look for a two-thirds upgrade to the earthquake strengthening codes as opposed to the one-third which is common throughout New Zealand?

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**Peter:**

I think the indication is that the buildings that had been strengthened survived and there was little or no damage. I think what we've done is the right thing to do and I'm an engineer myself. If a brick falls off an historic building and you say – well, we're going to allow a lower standard – it's still going to kill people if it hits them on the head, whether it's an historic building or any other building. I also think that it's not going to cost too much more to go that extra level in most buildings of the type that we have in Gisborne, which are usually one or two storey buildings. We are not talking about multi storey buildings here.

**Dave:**

I just wanted to observe, I'm not sure that the comment about common practice of one-third is right, John. I was wondering if, as Wellington City Council in the audience, whether they might like to attest to their policy here.

**Claire Stevens:**

Claire Stevens, Wellington City Council. We had some legal advice when our policy came into place and the legal advice we had was that we couldn't require more than one-third of the current code for earthquake strengthening unless there was a change of use. Now often changes of use do happen as a consequence of redevelopment or re-jigging things after an earthquake, so that may be one of the things that comes into play at that time.

**Peter:**

It wasn't just change of use of the building consent process. Sorry, that's true under the change of use but it also is a requirement if there are major alterations. We can require that.

**Dave:**

Yes, why Gisborne chose two-thirds and I'm not disagreeing, it's probably good policy, but as I said in my talk earlier it did it hinder people making decisions to upgrade in a timely manner.

**Noel:**

I think many people know that the two-thirds figure came from the recommendations of the Earthquake Engineering Society, which said that the one-third was the minimum figure. The recommendations were adopted by Gisborne District Council on the basis of that and the relative risk – at a third of current code you are something like eight times the risk of a brand new building, but at two-thirds it's only about three times the risk of a brand new building. I think that was the basis behind it and that's where it's been taken up by Gisborne.

**Tim Davies:**

Tim Davies, University of Canterbury. The reason that I've come up for this and the thing that really worries me about earthquake recovery in New Zealand is the total effect of a bigger event. We spent the whole afternoon talking about what is admittedly quite a minor event that affected quite a minor city with a minimal impact on the economy of the country. What lessons can we learn from this? What indications does it give us about the recovery process and the length of the recovery for a significantly bigger event and a significantly, with apologies to Gisborne, more central and important chunk of New Zealand's infrastructure?

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**Alan:**

I'll start with that. Firstly, I agree with you. That was a small event, it was a very small event and I made the point in the introductory speech that when we are talking about a large event – and we haven't had, in my view, a really large event. I don't think 2007 floods were a large event. I don't think the previous Napier earthquake was a particularly large event. So what we are talking about is a very long term recovery covering a lot of issues. Who else wants to have a go at this question?

**John:**

I guess it's all on scale. How big is a major event? If it's a major event, do you recover? Do you walk away? Years ago I remember when I first came to live in Wellington and started working at the Insurance Council, there was talk way back in the late 90s that if there was a major event in Wellington, the Government would start up in Palmerston North. I don't think that's true nowadays but you know, you see third world countries like Turkey having major earthquake events and they don't recover very quickly at all. So I don't know. I would hate to think that we don't recover but it's really about not just insurance but thinking beyond transferring your risk to insurance. If you're a company, are you looking at succession planning, spreading your risk? If you're a homeowner, it's pretty easy to take your insurance payment and walk away – jobs will go, all that sort of stuff. So it's a very hard question I think to answer. If we are planning for the big events all the time, we won't focus on the events that are going to occur more often. I think planning for a huge event is nearly impossible.

**Alan:**

I think you're right, I know you're right. But there are three types of events. I mean there's an event which is just an emergency which we have from time to time. There is an emergency which happens less often and then there's the catastrophic event and when we are dealing with anything that's larger than an emergency I think we are just talking about really living and working in that post event environment. It will change the GDP of New Zealand, will it not? It will change it hugely. It will change the social fabric of New Zealand. It will change the built environment of New Zealand. The fourth one I had up there was just the general environment that we've got in New Zealand – I was trying to think of another word. But each of those four will change. They will change quite considerably. How they will change, I don't know. Will we be living and working in the same areas? I think yes, we will. Will government still be operating out of Wellington? Yes, I think it will. Will it operate out of Wellington in the short term? No, I don't think it will. Those are some of the sorts of questions that we need to ask and answer and be able to ask and be able to answer.

**Tim Davies:**

I'd like to make two points. It isn't if there's a major event in Wellington, it's when there's a major event in Wellington. That's well established. The other major seismic event that's anticipated is the Alpine Fault on the West Coast of the South Island. To the best of my knowledge that's got an annual occurrence probability of about 0.01 at the moment, which is the same as a 100 year flood, which is the same as the Manawatu floods. It's not an unlikely event at all. It is going to happen. The probability is that it's going to happen quite soon. I think we ought to be seriously thinking about planning for it.

**Ken:**

Just picking up on your point Alan, it does beg the question about our state of preparedness, doesn't it? I think the presentation we had from Wendy and Julia was very telling that we are unprepared for such an

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event let alone how we might recover from it. Is there anything you two can add on that?

**Alan:**

Just while you're thinking Wendy and Julia, I think we were talking about short term events today. We weren't talking about long term events at all. We were talking about small, short term events. We know that we're going to get larger and longer term events. So we need to think about that. Think about how we're going to plan for them. Think about how we are going to recover from them or recover with them. Those are the sorts of questions that we really need to be asking ourselves. We are not talking about the short term, small events which we've incurred and which we've had presented to us this afternoon.

**Ken:**

Wendy and Julia though, your findings in terms of preparedness in Gisborne, do you think they are typical of New Zealand as whole?

**Wendy:**

Yes, we do need to improve our general preparedness as far as these big events go. I went to Japan last year and visited Awaji Island just out from Kobe and I saw communities who were still rebuilding 15 years after that earthquake. The interesting thing is that the communities are being rebuilt differently to how they originally were, so people have to get used to this new community that they're living in.

I think there's an opportunity here for us to start thinking about recovery before the event happens, and to work not just with emergency managers but also getting the town planners and the building consents people involved as well, making it across Council. We need to make it a priority to start thinking about what could happen. Let's use some scenarios and ask questions about what could happen? How are we going to cope with this? What changes might we need to do once the event has happened? What are some of the implications of those changes? Whether these are land use changes or changes to internal processes as far as consent processing goes. We need to start thinking about these issues and make them a priority within Council. I know that Council staff are under huge workload pressures already and they need more resources, but we need to start thinking about these plans now so that once the event happens we don't all start sort of thinking "what should we be doing and who we should be talking to?"

I think we need a lot more integration between departments within Councils and to start thinking about these issues and getting something down on paper. The plans may be redundant once an event has happened, but the fact that you've sat down and talked through the processes and sorted through some of the implications and the problems that may come up means that you don't have to do that straight after the event, you've already got a clear idea of what could be done. So I think that's a big step forward that we need to make.

**Ken:**

And who's going to drive that change?

**Wendy:**

Well, that's where we need to make the most out of these little events to highlight things – this was a small event and look at the problems it caused; imagine this on a bigger scale. We also need to start thinking about it seriously. Following up on what Tim said, with the return period on the Alpine Fault being the same

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as the Manawatu floods, that really should prompt people – “oh, crikey we actually do need to start thinking about this”.

**Julia:**

With regard to the concepts of optimism and fatalism that Abigail was talking about, we need to do more work on that in our communities to reduce any fatalism. That idea that “I can’t do anything about the problem, it’s too big, I’m going to die anyway”. When I’m out there, talking to members of the public they think that future earthquakes are going to be so big, the Alpine Fault earthquake is going to be so big. These people are telling me really bad stories about death and devastation. People really need to know that, while it’s a realistic possibility that it could happen and it will happen one day, they can do something about it. I think getting out into the community, whether it be individual households or whether it be within businesses, we need to tell people exactly that. We also need to address things like over optimism and try to get people to think “well, I might be impacted and these are the things I can do”. There are definitely some messages that we need to push within communities and as part of that community participation I was talking about earlier.

**Matt Yee:**

Matt Yee from Kordia New Zealand. We have heard survey results about what people would do, normal people, but what would criminals do? In terms of they might rob a bank.

**Darren:**

People will continue to be criminals. If they were criminals before the event, they will be criminals after the event. If they take advantage of the event they will loot, steal, rob – that’s what happens. We can turn our attention to what communities do when they’re positive, but we need to recognise that in very stressed situations people are going to behave the way they do now. The idea that people loot is often raised as a sort of myth, that people don’t do that sort of thing. I questioned whether people panic which is another apparent myth. I think given enough research I think I could prove to you that people panic and they panic under different circumstances. I think also that people will loot under the right circumstances and some of that is about what you consider looting – if you steal food because you’re hungry, is that looting? If you steal a TV set, that probably is.

**Bernie Goodheart:**

Yeah, I’d like to make a couple of comments. Bernie Goodheart from Kapiti Coast District Council. I guess after this there will be a lot of people catching a lift up to the top floor and jumping off because there’s going to be no tomorrow and you’re going to die. A couple of comments around the differences between some of the approaches that have been taken between academic studies and people that are involved in emergency management. We try and tell people there is no normality. You’re not going to return to normal and yet all through today except for the end there, we heard that people are getting back to normal. Now you can probably get back to normal if it’s a small event like Gisborne or hope you can get back to normal. But in a big one there is no normality that you’re going to return to. You are really going to be trying to look - and we talked about district planning and whether or not you go back into areas - we’ve already started talking about things like that within Councils. It’s not new, it’s not rocket science. We’ve recognised that these things have to happen.

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So don't leave here thinking nothing's happening in Councils and that this is all brand new stuff. We are starting to talk about recovery. MCDEM have been pushing for recovery management courses to focus on issues like that and one of the things that a recovery manager has to do is to get a team of people together. I've got my resource consent planner – is he still around? Yeah, he's down there. He's my left hand man – or right hand man – depending on which table we're sitting on. But the issue that we will have is, would we recover when we go back into certain areas of Paraparaumu or Kapiti or wherever? If we had a big flood we may not get back to normality. It will be a different life. Communities will come back differently.

We've heard in Samoa you've got districts that are being evacuated or villages that have been evacuated; people that have taken to the hills are not that keen on coming down again. So for them, normality may be putting a village up in the hill instead of putting it down by the beach. We've got to take that approach; it's got to be worked through with the community. It's not something Council will do; it's a community decision that will come out of this and you've got to take the approach that things may not be normal again.

So if people are wondering what's going to happen in Christchurch if you have a big earthquake down there, Wellington still has some fairly cheap properties if you want to come up. You might even want to go down to Invercargill because that might be the next haven for you. We people will make individual decisions; we won't be able to direct them. There's no power legislation-wise that says you must return to your home or you must not. You will try and do it but it will be community decisions and community groups that will need to form up from it. What I am quite impressed with is that we've got quite a few academics that know a lot of it so if Kapiti does get in trouble, guys, you know, give us your business cards and come and visit me because I will probably be looking for you.

**Fred Mecoy:**

Fred Mecoy from Wellington City Council. Just picking up from Bernie's point actually. Bernie, I was talking to one of your residents the other day who said to me that the Paekakariki floods a few years ago where actually the best thing that happened to that community. So I think it's a given that communities will be different.

I just wanted to also pick up on John's point earlier about whether you just walk away? I would like to ask the panel what their thoughts are on potentially what ought to happen, obviously tsunami has been a recent topic of conversation as is rising sea levels with climate change. At what point, if a coastal area is significantly damaged, do we make the decision to walk away and not rebuild? What is the position of some of the people on the panel, the organisations that you represent – would insurance companies still pay people to walk away? And what would local authorities be doing?

**John:**

Insurers have paid claims to relocate in the past – and a lot of policies will cover relocating. That's not relocating a building, but if the building is totally lost and you can't rebuild there, the insurer will probably rebuild elsewhere. Are you compensated for land? You are to a certain extent with residential land under the EQC Act. If you can't rebuild on that land you get a settlement from the EQC and it may be enough to secure land elsewhere. However, I'm not sure of the scope of policies providing commercial property owners the ability to move somewhere else. It's something we need to look at. I think the issue raised about coastal flooding and sea level rise is certainly a big issue. Sea level rise, gradual rise, is not something that's covered by insurance, but if a flood eventuated and wiped everything out would you want to rebuild there? Would

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insurers cover you in the future if you rebuilt in the same place? I think insurers will have to work with the community and discuss these issues around relocation – it's something that we need to start looking at.

**Julia:**

Just adding on from John's comments, we've done a bit of work looking into community relocation as part of this preplanning work that we've been involved with. Relocating communities is fraught with difficulty and there are a lot of really bad examples of decisions about relocating communities. Communities have disappeared, take Kelso in the South Island for example. That was relocated and it basically disappeared off the map. There are also lots of similar overseas examples where they've tried to relocate communities and it hasn't worked. The key to making relocation successful is for it to be driven by the community. Essentially it has to be a community decision to make the move. We want to relocate out of bad and hazardous areas, but there are a lot of other social processes going on and reasons that people might want to stay in an area. So it really has to be a community-based decision to move those communities.

**Alan:**

I just want to say ditto. I've been around for a little while and the only community that's actually been relocated is Kelso, and it disappeared. I sat on the committee that had a look at the relocation of Greymouth under Gerald Hensley in the late 80s. Well that didn't happen. They built a bigger, higher, brighter-looking sea wall. It's a difficult question. I don't know how you are ever going to relocate a community.

You take your pick of the Christchurch earthquake, the Wellington earthquake, the alpine fault, a tsunami, a major event in Auckland. I think we will actually relocate back to where we were. There will be some small decisions made at the margins. There will be some coastal communities which probably won't be built on. Look at the difficulties we're having in Haumoana at the moment; half a dozen houses there. You look at the difficulties that we're having at Kaeo at the moment; a small number of houses there. I don't actually think that relocation is an option. I think Julia's right. I think there's a whole lot more social and community-type activities going on which we really don't know about, and we ought to know about, which are going to influence that decision.

**Dennis Waters:**

Dennis Waters, Geoscience Australia. A couple of questions in terms of extending the modelling – what would've happened in this event if it had happened during the day time? Has anybody done any analysis on how many people might've died with the parapets falling down and that sort of thing?

My other question, sort of an extension of modelling, what was the impact of this event on the national economy? We know the damage is negative, but we also know that repairs and maintenance and rebuilding are positive for the economy. I made a point earlier about there being winners and losers in most of the industries that might have been affected. In some instances these tend to wash out across the nation as very little impact, but there are serious impacts on the individuals whose businesses have gone broke and so on.

**Darren:**

I'm going to say bricks falling in the daytime will kill more people than bricks falling at night.

**Dennis Waters:**

Good guess!

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[laughter]

**Dennis Waters:**

I was just going to make the point that when we do our analyses in Geoscience Australia we always have them happen at midnight. And why do we do that? It's because the census data is collected on one night and when most people are at home. But if they happen at other times, the numbers of injuries and fatalities are likely to be higher.

**Peter:**

The earthquake occurred at 8.55pm, it was late night shopping so there were still a number of people in town, but the majority of people were making their way home. If it happened during the middle of the day I imagine there would've been, if not fatalities, some serious injuries. Although most of the parapets fell perpendicular to the axis of the main road, some of those fell into shops and in a couple of cases just narrowly missed a couple of people. Some fell onto the main street. So my gut feeling is there would've been some serious injuries. In terms of the economics, no, we haven't done a full assessment of that but I would've thought it would've been neutral to our district. If you view the insurance, we're talking \$50 million plus actually coming back into the economy in terms of reconstruction, and I don't think the effect on businesses would've been upwards of \$50 million.