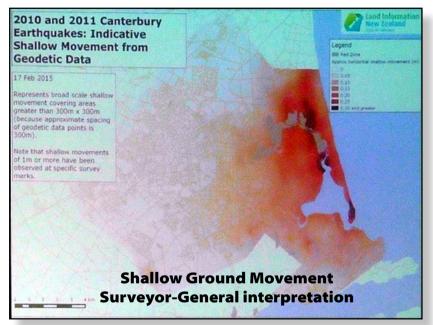
Christchurch recovery

New Zealand, 15 March 2015



Would you build on land without future insurability? **EMPOWERED**

A COVER-UP?



A presentation was given at the Addington Raceway on Wednesday 18 February 2015 by Mark Dyer, the Surveyor-General and Chair of the New Zealand Geographic Board, Nga Pou Taunaha o Aotearoa (NZGB). The presentation was followed by publication of the relevant data

for surveyors to determine boundary movements.

The above image was presented without any disclaimer.



Map published by LINZ

Shallow Ground Movement LINZ interpretation

However, 5 days later, on the 23 February 2015, Land Information New Zealand (LINZ) produced the following map and the Surveyor-General promptly and inexplicably withdrew his data.

You will notice that an extensive disclaimer has been added here and that some areas on the map, produced from exactly the same data, have been altered.

Reported damage

"2.1 Lateral spreading

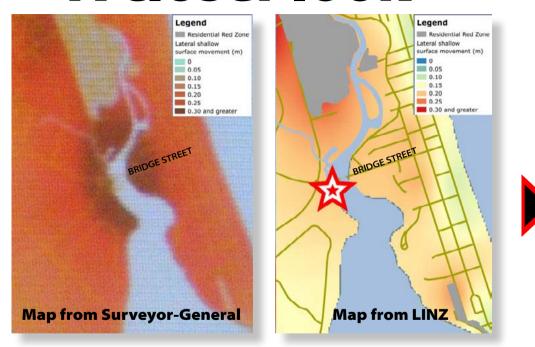
While ext ensive liquefaction affected most of eastern Christchurch, the liquefaction was particularly severe and damaging along the Avon River where it was accompanied by substantial lateral spreading. Ground surveying measurements of lateral spreading at approximately 80 locations along the Avon River (Robinson et al., 2011; 2013) have shown that the magnitude of permanent ground displacements and the width of the zone affected by spreading generally increased heading down the Avon River.

The spreading displacements were highly variable in their magnitude and spatial distribution even within a small area, reflecting the complexities of the lateral spreads in the meandering loops of the Avon River (Cubrinovski et al., 2012). The largest permanent displacements of ~ 3 m were measured at the Pleasant Point Yacht Club, near the South Brighton Bridge, where the Avon River discharges into the estuary." (our bold type)

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Source: http://db.nzsee.org.nz/2014/oral/78_Cubrinovski.pdf & New Zealand Journal of Geology and Geophysics. Vol. 55, No. 3, September 2012, 255269

A closer look



The star indicates where the largest displacement of ~3m was recorded. The LINZ map displays 20cm displacement. That equals 7% of the actual land damage. 93% of the land damage has been misreported.

One can only wonder who ordered this change to be made to the accurate data and what the purpose of such a deception could be.



Political interference?

Flip-flop guidance from the Surveyor-General:

19 February 2015

1. Cadastral boundaries do not move with shallow surface movement Legal precedent has established that legal (cadastral) boundaries do NOT move with shallow surface movement of the land.

www.linz.govt.nz/.../Proposed%20Guidance%20Feb%202015.pdf?..

Then, within 24 hours...... 20 February 2015

"Thank you for the feedback you have provided to date on the proposed guidance for surveyors working in earthquake affected areas of Christchurch.

It is clear from your feedback that there are significant concerns with the proposal and more work is needed on the wider issues associated with locating property boundaries in Christchurch.

While we do this, given the priority of the rebuild, we have made the decision that the proposed guidance

does not apply. As a result, the guidance that was in place prior to the proposed guidance being released on 19 February 2015 continues to apply." (Our bold type)

- See more at: http://www.linz.govt.nz/land/surveying/canterbury-earthquakes/information-for-canterbury-surveyors-post-earthquake-cadastral#sthash.GoduYzSe.dpuf

A document from Surveyor-General (SSSC2011) issued in November 2011, after zoning decisions but before the December earthquakes, stated in its conclusion that: "This may not occur in any volume until 2012 when the effect of decisions as to the retreat from parts of the city is complete."

While this indicates that more red zoning is still due, when will the residents be told?

Further Cover-up?



Minister Gerry Brownlee has denied on two separate occasions that there are any properties below the high tide mark in South Brighton. First at the Earthquake Forum on 4 November 2013.

Source: Youtube, Rebuild and Recovery Forum Part 2 - Insurance - 4 November 2013. Minute 41-46

"We did not leave people below high tide mark."
And also on Radio New Zealand on 6 March 2014.



Christchurch Mayor?



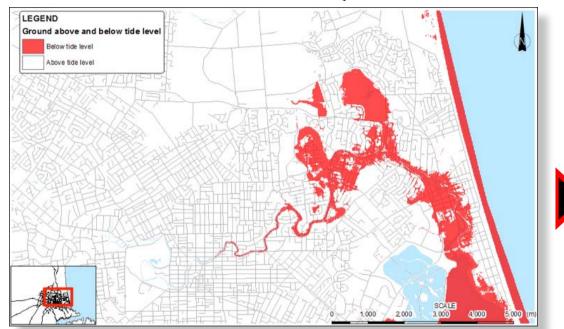
Lianne Dalziel also made the following statement at the Earthquake Forum on 4 November 2013.

Source: Youtube, Rebuild and Recovery Forum Part 2 - Insurance - 4 November 2013. Minute 47-49

"I am not going to stand by and see people forced to repair their houses when we know that we are going to put them at this level of flood risk"



What does EQC know?



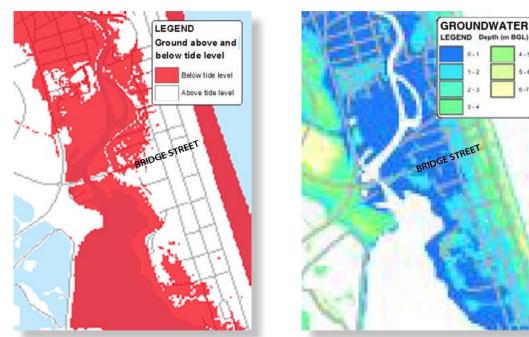
In August 2014, EQC published its Flood Vulnerability
Overland Flow Model Build Report,
showing that Mr Brownlee's statements were incorrect.

Source: http://www.eqc.govt.nz/sites/public_files/file_attach/Increased Flood Vulnerability Overland Flow Model

Build August 2014 Report.pdf

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Closer look at the area



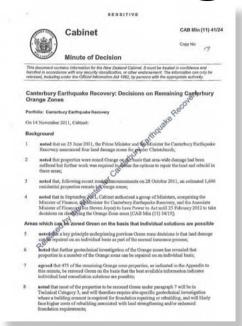
The information published with the new flood map includes the following:

"When the flood extents of the TUFLOW model with the revised parameters were compared to the river model, it was found that the TUFLOW results had more extensive flooding in the lower Avon area than was expected. The static tide level used in the base case in the Avon was shown to be above ground level for a large portion of the downstream area, as shown in Figure 9-2.

The result of this was that there were backwater effects from flow into the area, as there was no way for water to discharge out of the model, which resulted in unrealistically high water levels. (Our bold type.)



Zoning decisions



Cabinet ministers based zoning decisions on the assumption that individual solutions were available for all land that had been zoned green. The Earthquake Commission has now stated that no individual solutions are, in fact, available for properties at increased vulnerability to flooding (IVF category). The logical conclusion from this is that the zoning decisions were based on incorrect assumptions and that the land in question is damaged beyond repair (a total loss).

The Surveyor-General referred to future zoning decisions in November 2011.

Then the 23 December earthquakes hit Christchurch.

Following the guakes, many decision-makers in the recovery have referred to re-zoning.

They include:

John Key, Roger Sutton, Bob Parker and Lianne Dalziel.



EQC Stage 3 Report

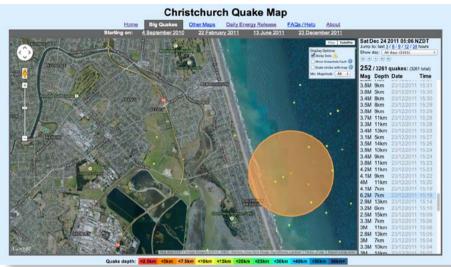




An e-mail from from Mike Jacka (Tonkin & Taylor), dated 16 April 2013, states the following:

"Looking at the LiDAR change in elevation map, we can see that, in the part of
South New Brighton between Falcon St and Seafield Place, the ground subsidence is generally between
100 mm and 400 mm, with a few properties showing up to 500 mm of subsidence.
So in this part of the suburb, the ground subsidence is clearly much greater than
most of the rest of South New Brighton. Of the 10% of properties in
South New Brighton with more than 250 mm subsidence
(about 140 properties), it looks like most of them are located
within the areas around the west end of
Bridge St and the south end of Estuary Rd."

23 December Quakes



The 23 December 2011 event involved approximately 194 earthquakes under the eastern suburbs.

These resulted in significant liquefaction, lateral spreading, and subsidence of both land and buildings.

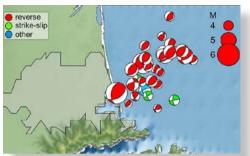
Many of the earthquakes were very strong and some destructive, with the largest one occurring almost directly beneath the South Brighton area.

Date	Time	Richter (ML)	Modified Mercalli
23 December 2011	1:58 pm	5.9	VIII. Destructive
23 December 2011	2:06 pm	5.3	VII. Very Strong
23 December 2011	3:18 pm	6.2	VIII. Destructive
23 December 2011	4:50 pm	5.1	VI. Strong
24 December 2011	6:37 am	5.1	VI. Strong
2 January 2012	1:27 am	5.1	VI. Strong
2 January 2012	5:45 am	5.3	VII. Very Strong
2 January 2012	5:45 am	5.6	VII. Very Strong
6 January 2012	2:22 am	5.0	VI. Very Strong
7 January 2012	1:21 am	5.3	VI. Strong
15 January 2012	2:47 am	5.1	VI. Strong

Large earthquakes on 23 December and following days

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Scientists



The graphic illustrates the earthquake mechanisms for the larger aftershocks since the start of the 23 December 2011 sequence.
Peak Ground Acceleration measured 1g.This is the tenth largest PGA ever measured worldwide.

http://en.wikipedia.org/wiki/2011_Christchurch_earthquake

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New Zealand Herald Saturday Dec 24, 2011

"University of Canterbury geologist Mark Quigley said the magnitude 5.8 earthquake generated ground accelerations of 1g in New Brighton, on the eastern side of Christchurch.

This meant the buildings in eastern suburbs were thrown up and dropped with the same acceleration a stone would have if dropped from a person's hand.

More significantly, the threshold for liquefaction occurring was around 0.17g to 0.2g.

"So the largest 'quake was five times the ground acceleration required for liquefaction," said Dr Quigley.

"Even though the first earthquake seemed slightly smaller, at a 5.8, the proximity to the eastern suburbs but also something about the way the fault ruptured generated extremely high ground accelerations."

http://info.geonet.org.nz/display/quake/2011/12/23/Dec+23+2011+++Christchurch+hit+again+at+Christmas

"Some further liquefaction has occurred in eastern suburbs as expected, and this reinforces the correctness of decisions not to rebuild in these areas."

Sara Page GeoNet Public Information Specialist

Experts' opinion

Vulnerabilities to Seismic Hazards in Coastal and River Environments:

Lessons post the

Canterbury Earthquake Sequence 2010-2012,

New Zealand

A thesis submitted in partial fulfilment of the requirements for the degree of

Master of Science in Environmental Science

at the

University of Canterbury

Emma J. Kelland

Department of Geography

University of Canterbury

Canterb

"It is imperative to investigate and update documents that govern the way in which natural hazards are managed in order to improve resilience within a city. If these investigations do not take place and changes are not addressed, it would be likely that the same mistakes that made a city vulnerable to natural hazards in the first place, would be repeated. Experts R.M Kirk and Marion Irwin have indicated that developmental mistakes are re-occurring in certain areas of Christchurch."

"However, in some places in Christchurch, where it would seem to be appropriate to have red zones and movement of development away from high risk areas, the decision has been made to make these areas green."

http://ir.canterbury.ac.nz/bitstream/10092/8487/1/thesis_fulltext.pdf

CHRISTCHURCH

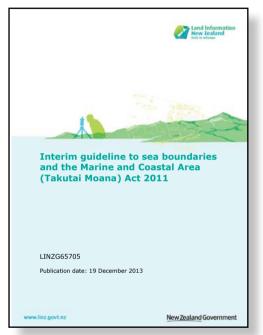
"There has not been transparency in how the zoning decision has been done.

I do not know who supplied the data that the decisions were based on"

(Dr Sonia Giovinazzi – 10/8/2012)

"It is certain that there is awareness now about where liquefaction occurs, but whether the picture on that is clear to people who are making decisions about land is uncertain. Those who are in the unenviable position of making design solutions right now about things such as infrastructures and properties, tend to be as careful as they can but are kind of making it up as they go a bit. There has been no comprehensive investigation of coastal land undertaken before these decisions have been made" (Emeritus Professor R.M. Kirk – 9/8/2012)'

Marine and Coastal Area



Land Information New Zealand has conceded that the boundary of the marine and coastal area (MCA) has changed due to subsidence.

It therefore needs to be redefined (Ref PRV-F15-10/765).

The Local Government (Rating) Act also states that land within the MCA is not rateable.

Many properties along the Avon estuary have subsided below the high tide mark. Groundwater is at a dangerous level and the land has lost much of its bearing capacity. The marine and coastal area has remained uncorrected since the earthquakes. Properties are presently considered to lie outside the marine and coastal area.

Properties within the marine and coastal area are at very high risk, and therefore require the protection of the Resource Management Act.

The land in this category is probably the most risk-prone land in Christchurch (RiskScape).

Ratepayers should be entitled to the protection of the Resource Management Act by having the marine and coastal area properly and correctly redefined.



Re-zoning?



At the end of 2011, the Sydney Morning Herald reported that, following the earthquakes in December 2011, zoning decisions would need to be revisited. Despite the widespread subsidence and the active fault line running through South Brighton that generated most of the December 'quakes,

no consideration was giving to re-zoning the area.

Many of the people affected are now at risk of imminent loss.



Insurance Council



ICNZ has issued a strongly worded statement, stating that the insurance industry may retreat from high hazard areas in the coastal regions due to the unacceptable level of risk.

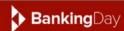
One illustration of this is that some insurance companies are now only providing cover on a month-by-month basis in the estuary area.

Amongst other things, ICNZ made the following recommendations to the government:

- "take the long-view require local authorities to deny consent applications where taking the long view shows risks from natural hazards will increase.
- high-quality data establish a high quality, national natural hazard database to inform decision-making such as the cost-benefit trade-offs around risk reduction.
- a hazard risk on every property ensure there is publicly accessible information on the natural hazard risks every property in New Zealand faces."



Banks and mortgages



Latest news

Banks readying for sea-level erosion of property values

Insurers and banks are beginning to focus on the risks of rising sea levels for property values, New Zealand's Parliamentary Commissioner for the Environment has warned ahead of the release of a detailed new report which will show which coastal property will be hit hardest.

Commissioner Jan Wright appeared before parliament's Local Government and Environment select committee in Wellington on Thursday to discuss the Commission's recent report 'Changing climate and rising seas: Understanding the science', which spelt out that a 30 cm rise in sea levels by 2050 was already 'baked in'.

When she released that report late last year, Wright was already warning that banks had started taking an interest in the issue during the investigation.

"If you imagine now a thirty year mortgage on coastal property that is vulnerable, maybe you get to a point where the insurance is not renewable after a certain point," she said at the time.

"When these events become a certain frequency, the insurance companies say: 'No more'. And for the banks there may be the problem of negative equity."

On Thursday, Wright revealed that a second report, due "by the middle of the year", would include modelling to draw up coastal hazard lines, and would look "particularly at the risk to property and infrastructure and ... how councils will be trying to deal with this [as they] run headlong into ratepayers."

Wright told owners of coastal property to look to the experience of Christchurch property owners who found their land had become flood prone following the earthquakes there.

"One of the most interesting interactions in this report has been with the insurance industry." she said.

they may cancel the insurance policy.

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Looking at this situation from a resident's perspective, we can perceive the reality that lies ahead for a rebuilt property on coastal land with a 200k mortgage.

The District Plan may result in a hazard notice being issued as predictions for sea level rise increase. When the insurance companies determine that the risk is too high,

The bank may then call in the mortgage and, if the 200k cannot be repaid, foreclose on the property.



Recovery Authorities

Problems: EQC has still not revealed land information for many areas and has still not decided how to compensate owners for land damage.

The introduced hazards have not been recognised by the authorities.

Despite the higher ground water and the loss of ground-bearing capacity, foundations are not being modified or rebuilt to reflect the change in land conditions. Instead, they are being left as before and many properties are being subjected to "jack and pack" approaches.

Homes that are being repaired and rebuilt in the areas with severest land damage face having hazard notices issued on their properties. This could reduce the value of a resident's greatest asset by up to 50%.

Risks: Residents are unlikely to obtain insurance cover for the identified hazards. For example, insurance companies will not provide cover for subsidence and EQC does not provide cover for flood events.

All the stop banks in the eastern suburbs are of a temporary nature.

No long-term solutions have yet been devised.

Groundwater is at a dangerous level and rising.

The issue of changes in property boundaries has not been addressed and could result in legal disputes for many years to come.

The new District Plan is expected to introduce a minimum floor level of 12.3 m. We will then have homes at three different levels, with only the highest affording some protection against the threat from the unavoidable failure of the temporary stop banks, global warming and rising sea levels.

The Earthquake Commission - Quis custodies custodiet?

(Who will guard the guardians?)

How much money has EQC (i.e. the government) cost (and will continue to cost) the New Zealand taxpayer through:

- inefficiency and incompetence
- multiple assessments and duplication of effort
- futile advertising and public relations campaigns
- disputes, resolution processes and court cases
- time and expense for responding to OIAs
- declaratory judgement
- under-cap assessments subsequently changed to over-cap
- becoming involved with home repairs
- massive increase in personnel costs

On the other hand, how much money has EQC saved the government through:

- denying, delaying and defending claims all the way to the Supreme Court
- investment of reinsurance payments while payments were delayed
- spinning out the land compensation process for so many years while rebuilds or repairs took place
- increasing the EQC levy from February 2012
- apportionment process with the excessive delays involved





Long-term planning





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Christchurch is a low-lying city. Flood protection will have to be put in place eventually to protect its people and ensure a resilient city. The Coastal Pathway (22 m) is in place. At a height of 11.2 m, it will suffice for flood protection. Major cycle ways are also planned, with a budget of \$154m. We believe it is no coincidence that they have been planned along the north side of the Avon River all the way to the coast.

The Press 11/9/2014:

"Council city planning unit manager Brigitte de Ronde said the coastal hazard policy was the lesser of other priorities. Abandoning residential areas, including parts of Linwood, South New Brighton, EMPOWERE South Shore, Brooklands and Sumner, was considered likely."

Flooding Groundwater Sea Level **Lateral Spreading Red Zones outlined**

Rebuilding in Red zones

A variety of conflicting statements have been made about rebuilding in the red zones. Some of the "red-zoned" areas are several metres higher than properties in the "green" zones in the east and have suffered less liquefaction and lateral spreading. In some cases, groundwater in the red zones is between 2 and 3 m and the ground level is metres above the high tide mark. Such land is perfectly suitable for modern, lightweight buildings and could be used to alleviate the housing pressure in Christchurch. In retrospect, it appears that many residents have been dispossessed and expelled from certain areas for no justifiable or logical reason and that decisions on zoning have been made on grounds that have little to do with geotechnical results or viability.



Document shredding

26 Feb. 2015

HE PRESS, Christchurch

Cera plans to shred quake documents

Michael Wright michael,wright@press.co.nz

Thousands of Canterbury Earthquake Recovery Authority (Cera) documents will be destroyed after the agency is disestablished.

Cera has drawn up a plan for retaining and destroying documents when its five-year lifespan ends in April 2016, detailing which ones will be kept and which are bound for the shredder.

The plan, notified by Archives New Zealand last week and pending its approval, will see strategic documents, such as reports and records of ministerial meetings, policy documents and correspondence, archived and many "administrative" records dispensed with. Some will be transferred to other government agencies or local authorities.

"As Cera was created in response to the Canterbury earthquake events, the public records it creates provide a

unique record of the response and recovery efforts," Archives New Zealand chief archivist Marilyn Little said.

Paperwork from Official Information Act requests (OIAs) will be kept for the statutory seven years, but the authority rejected a suggestion from the Archives and Records Association of New Zealand (ARANZ) to hold on to it longer, saying if documents were "really important" they would be archived elsewhere.

Asked to provide feedback on Cera's disposal plan, ARANZ said there was "a good argument" to keep OlAs longer "in the areas of earthquake recovery that has specific resonance with affected citizens".

"All the more so because in many instances, there has been a lot of friction at the interface between Government and citizenry."

Cera decided not to retain OIAs any longer than it was required to.

"If these went on to become really important OIA's (sic) rather than general

requests for info then they will become legal cases. Ombudsman cases or Ministerials." its response read.

"We believe that this is enough retention for this information."

Little said Archives New Zealand was-"comfortable" with Cera's approach to OIAs

All public agencies are required to have a disposal schedule for records. The Cera report noted it was in an "unusual situation" with its five-year tenure limit, but chief executive John Ombler said the timing of the plan's release had nothing to do with its transition.

Little said Cera's "unique nature" meant disposal methods, either destroying documents or passing them to other agencies, had to be specially tailored.

If Archives New Zealand approves Cera's plan it will be responsible for destroying records itself.

The plan is open for public comment

Cera is now asking for permission to shred documents. We question the accuracy of its zoning decisions, as well as how and why they were made. If the plan is to build on the Red zones in the city, who will benefit financially?

Was this the hidden agenda behind the zoning decisions?

How can it be deemed appropriate to leave certain groups of residents at risk of imminent loss?

What has happened to fairness and democracy in New Zealand?



In Conclusion

- The land damage from the earthquakes after July 2011 has been concealed.
- People are being forced to remain on land with no insurable future.
- Hazards introduced by the earthquakes will not be identified until the final district plan is published, by which time most insurance claims will have been "settled".
- Once hazards are properly identified and registered on property titles, the value of the said properties will drop significantly.
 - Current Hazard mitigation is temporary (stop banks).
- Insurance companies will retreat from high hazard areas.
- Banks will immediately follow suit when properties are uninsured.
- Council and business are already retreating.

We question:

- Since so many references have been made to the advisability of retreating from more areas in Christchurch, why has there been no response from the authorities?
- Is the recovery mainly concerned with the welfare of businesses, such as insurance companies and banks?
- Why are the insured residents the last people to be consulted?
- Who made the decision to hide all the land damage?
- How can EQC leave hundreds of homes at risk of imminent loss?
- What has happened to the duty of care, the duty of full disclosure and the duty of utmost good faith?



