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## **COOK STRAIT EARTHQUAKE OVERVIEW (21 JULY 2013)**

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### **1. Purpose of report**

The purpose of this report is to provide the Committee with an overview on the Council's response to the Cook Strait Earthquake on 21 July 2013. This follows on from a briefing to elected members following the Strategy and Policy Committee meeting on 1 August 2013.

### **2. Executive summary**

Wellington City was struck by the magnitude 6.5 earthquake on Sunday 21 July at 5.08pm. The epicentre of the quake was approximately 50km southwest of Wellington CBD and 12km deep<sup>1</sup>.

The event caused some damage to buildings within the CBD, including the Civic Campus; this required closing some streets due to safety concerns associated with falling debris.

The Council activated its Civil Defence Emergency Operations Centre (EOC) to coordinate the response of front-line council, and emergency service, activities. The Council's Acting Chief Executive Derek Fry also activated the Council's Crisis Management Team (CMT) to manage the organisational business continuity response.

The management of the event worked smoothly, with internal and external communications working well, with some lessons being learnt in the process.

It should be acknowledged that although the response was well managed, the scale of the event was relatively small and occurred at a relatively quiet time of the week, with fewer people in the CBD. Had the earthquake occurred during the peak hours of the week, or had the damage to the Civic Campus prevented rapid re-occupancy, then the scale of the response and the disruption to Council services would have been more widely felt.

<sup>1</sup> GNS Science, 2013, 'Cook Strait Earthquakes Information', <http://www.gns.cri.nz/Home/Our-Science/Natural-Hazards/Recent-Events/Cook-Strait-Quakes>

### **3. Recommendations**

Officers recommend that the Strategy and Policy Committee:

1. *Receive the information.*
2. *Note that the Chief Executive has initiated a debrief process, which officers will use to inform and update business unit continuity plans, Crisis Management Team arrangements, and Civil Defence Emergency Operations Centre procedures.*

### **4. Background**

The earthquake caused obvious damage to around 35 buildings, mainly within the CBD. There was a particular impact along Featherston Street and the area between The Terrace and the Waterfront, with broken glass and masonry falling into the streets. There was also some damage within the Cuba district. Limited, localised subsidence occurred on some footpaths along Featherston Street and there were multiple reports of retail stock damages and loss, as well as internal damage to offices.

City buildings generally performed very well, however there were some notable exceptions. At the time of writing, seven buildings are currently not operational, due to a range of structural integrity related matters. These are:

- James Smith's Carpark
- Reading Carpark
- Public Trust Building – Lambton Quay
- 188 Lambton Quay – on the corner of Woodward Street
- 146 Wakefield St (GWRC building)
- 60 Waterloo Quay (BNZ Building)
- Portico, Civic Square

Suburban residential housing appears to generally have been unscathed, with no reports of damage in the three days following the earthquake.

Lifeline utilities and related infrastructure were generally unaffected, with only short-term power cuts in Karori and Wainuiomata, due to tripped circuits. There was damage to a section of road at the CentrePort facility; however this did not reduce its operational capability.

There were reports of only a few minor injuries to individuals.

### **5. Discussion**

#### **5.1 Civil Defence Emergency Management Response**

The regional and Council's Civil Defence EOC were activated immediately following the initial earthquake. The EOC responders began arriving at the Wellington Regional Emergency Management Office (WREMO) building

situated in Turnbull Street Thorndon, at around 5.30pm. When activated it is managed by the Council's nominated Local Controller<sup>2</sup> and takes the lead in coordinating agencies involved in responding to emergencies.

The EOC was resourced and operated by staff from Wellington City Council with liaison officers from Police, New Zealand Fire Service, Lifeline Utilities, Capital & Coast District Health Board, and Wellington Free Ambulance. The Wellington Region Emergency Coordination Centre was also on site, with WREMO staff providing logistical support to the management of the EOC, and coordinating regional issues.

The priority objectives of the Controller were:

1. The safety of the community and of the personnel involved in the response;
2. The provision of welfare assistance to all those who may have needed it; and
3. Returning the functionality of the city to normal as soon as possible.

The first task of the EOC was to assess the impacts of the event and to form a response plan to address these. This was followed by the controlled execution of the plan and coordination of initial response measures. The response plan was dominated by efforts to ensure public safety. This was assisted on the ground by the Police, Fire Service, and the Wellington Free Ambulance.

The Council's Welfare Team put in place the necessary procedures for the provision of welfare for any affected people.

The safe and controlled access into and around the city was led by Council's Transport Assets team which initiated hazard isolation procedures and temporary traffic management measures. The department also undertook urgent inspections of key transport assets such as tunnels, bridges and retaining walls.

Capacity was instructed to undertake inspections of key water facilities such as reservoirs, treatment plants and pump stations; and to monitor and assess water flow data through telemetry systems, in order to assess any likely leaks and failures.

Lifeline utilities were instructed to conduct a quick assessment of impacts to key facilities supporting the provision of power, telecommunications, gas and public transport.

In conjunction with reports from Police, Fire Service, and Wellington Free Ambulance, the Council's Building Compliance and Consents team conducted an early evaluation of the extent of building and general damage within the CBD.

<sup>2</sup> A Local Controller is appointed by the Civil Defence Emergency Management Group, in accordance with the Civil Defence Emergency Management Act 2002, section 27.

On the basis of reports received from these key emergency response units, it was determined that a declaration of a state of emergency was not necessary for this particular event, as the city's local capabilities could effectively address the response demand.

Cordons were put in place in a number of streets throughout the CBD, including Featherston Street, Wakefield Street, Bolton Street and upper Willis Street.

Visual inspections of the CBD, conducted by Council building inspectors paired with external consulting engineers, was started at approximately 10pm on Sunday evening and continued for over a week, finishing on Tuesday 30 July 2013.

Due to the inherent level of ambiguity on the full extent of damage and uncertainty about the probability of aftershocks, a decision was made to strongly advise commuters not to come to work until at least midday on Monday 22 July. This was in order to ensure public safety, and to allow more comprehensive visual assessments of buildings and other infrastructure to continue in daylight.

The local and regional political leadership joined the EOC operations, and briefings were carried out on the evolving situation by the Local Controller and other EOC personnel. In addition, there was significant national political interest with visits to the EOC over Monday and Tuesday by the Prime Minister, Leader of Opposition, Minister of Civil Defence, and local members of parliament.

There was heavy local and international media interest in the effect of the earthquake and our response, with the first calls being received within seconds of the quake. Several hundred media inquiries were received in the 48 hours following the quake. In the first two hours following the activation of the EOC, live TV and radio interviews were given by Civil Defence Emergency Management (CDEM) personnel and the political leadership. Through its Public Information Management team, the EOC released its first formal news update at 8pm. Seven more releases were made throughout the operation, with the last occurring at 11.45am on Tuesday 23 July.

Over Monday 22 July and Tuesday 23 July, four media briefings were held, led by the Mayor. These were held in the New Zealand Royal Society's facility adjacent to the EOC. This venue was also used to host building inspectors and engineers.

## **5.2 Council properties**

Immediately following the earthquake multiple security alarms were triggered at the Civic Campus, including the fire alarm for the Municipal Office Building (MOB).

The fire alarm alerted the Fire Brigade and prompted the evacuation of the Council's Contact Centre staff who relocated to the alternate Contact Centre facility in the WREMO building, where they continued operating until the morning of Tuesday 23 July.

When the Fire Service and the first Council staff arrived on site, water was seen flowing from the Portico and down the southern wall of the Central Library – the source of this was eventually traced to broken sprinkler pipes in Portico. The sprinkler system was subsequently shut down temporarily leaving the Portico and Central Administration Building (CAB) without fire protection systems (The broken pipes have been capped and the fire system remains decommissioned in Portico and is currently not open to staff).

Engineers were engaged on the evening of Sunday 21 July to conduct a rapid assessment of the campus buildings. During this time they found no evidence of obvious structural concern.

On Monday 22 July Property staff together with specialist contractors carried out essential building services and safety checks of the Civic Campus – these included; checks of fall hazards, fire systems, electrical, gas, water, lifts, security and building access. Other than the Portico, the main damage was to the plaster in the CAB stairwells. This is undergoing repair over the next few weeks.

Staff and contractors from City Housing, Libraries, and Parks, Sports and Recreation undertook visual checks of sites in those portfolios.

In parallel with the building checks, engineering assessments were commissioned for Council buildings, with a focus on those already assessed as earthquake prone. By Tuesday 23 July, 21 Council sites, in addition to the Civic campus, were assessed and deemed fit to be fully operational.

The focus was on completing building services and safety checks for our commercial and community buildings – 82 checks were completed by Wednesday lunchtime when all buildings were cleared.

A more detailed assessment of the Portico has been undertaken which has identified damage to the seismic sliding mechanism; part of this has fused together and will not operate effectively in a larger earthquake. The engineering advice obtained is that there is no immediate concern over the load bearing capacity of the structure, however it has been recommended that repairs be carried out in the short term or that Portico is demolished. Repairs to this mechanism will be difficult and costly, so officers are looking to bring forward the demolition of the structure that has been agreed by Council.

The Central Library building suffered some minor water damage due to the leaking fire protection system in the adjacent Portico. Ongoing assessments found cracking in the render surrounding the columns which presented fall hazards. On the Tuesday night, the decision was made to shut the building to complete repairs and check whether structure of columns had been

compromised. These repairs were completed by Wednesday night, and engineering advice was obtained which confirmed the integrity of the columns.

Previous repairs to various leaks in the MOB basement were damaged during the quake, and some new leaks emerged. The basement has a history of leaks and the intention was to address these during final earthquake strengthening works for MOB, however given the water ingress now occurring, contractors have been engaged to undertake further assessment and to recommend solutions for immediate implementation.

### **5.3 Crisis Management Team response**

The Crisis Management Team (CMT) is convened for crisis events which affect, or threaten to affect, the business operations of the Council, and has the overall responsibility for managing the Council's response to any crisis through the provision of strategic leadership. During a civil defence response, such as this, the CMT works in parallel to the EOC, with its focus on returning the Council to business as usual operations.

The CMT was established at about 7.30pm on Sunday 21 July, following the initial visual inspections of the Civic Square and confirmation of damage. The initial focus was on engineering assessments of the Civic Campus to determine the ability to safely access offices for continuity purposes.

Whilst engineering assessments were under way, the CMT focused on developing a plan of action for the following day. It was decided that the campus would remain under security lock-down, and that the majority of staff would be stood down; with only tier three managers, and selected essential staff to attend the next day.

Separate to any civil defence related activities, it was determined that priority needed to be given to maintaining the Customer Contact Centre (already re-established at the EOC), and re-opening the Service Centre, including a presence from Building Compliance and Consents.

On the morning of Monday 22 July, all tier three managers attended a briefing at 7.30am to apprise them of the current situation. Limited, escorted, access to offices was provided for these managers to allow them to retrieve any vital documents, laptops, etc. to aid in the execution of their business continuity plans.

Staff moved through the buildings and assessed all floors checking for fall hazards (ceiling tiles: shelves etc). Cleaners and staff restored files, books, and shelves which had moved or fallen during the quake.

The City Housing team deployed to the community room at the Central Park Apartments, from where they managed their operation of visual checks of high rise and vulnerable buildings and welfare checks of elderly residents. Parks, Sports and Recreation established a temporary office out of their Newtown depot.

The Information Technology and Information Management unit set up its alternate operation in Tawa at the Council's IT Disaster Recovery site, to ensure continued operation of IT systems. IT operations prepared ICT connections and WI-FI to support up to 200 users at Tawa Library and Community centre, should staff relocation be required. No IT systems were compromised during the event.

The Service Centre on the ground floor of CAB was opened at 9am, with staff from Building Compliance and Consents, and City Housing in attendance. Due to the fire protection system being shut down, additional security was in place to provide a fire monitoring and protection service for staff and the public whilst assessments and repairs were underway.

Critical internal services based in CAB were given a high priority, with some being immediately relocated to MOB, and support requirements identified. Planning options for the relocation of business units housed in CAB commenced, in order to prepare for the possibility that reoccupation was not possible.

At approximately 4pm Monday 22 July, the CMT was able to advise all staff that they could return to work on Tuesday 23 July, with an understanding that first actions would be focused on office tidying, before returning to business as usual.

On Tuesday 23 July, the CMT was primarily focussed on the provision of internal communications, to ensure that elected members and staff were kept up to date with all post-quake issues in a timely manner. Health and safety of staff remained a priority with additional checks for damage or other safety issues, with guidance and support offered to managers regarding staff wellbeing. All business units reported a high staff turn-out, and a return to business as usual, with the exception of the Property team which continued building assessments and repairs.

The CMT stood down its operation at 3.45pm Tuesday 23 July, with reporting lines returning to business as usual.

#### **5.4 Initial observations and debrief process**

Early observations of the operation from those involved in the CDEM EOC and the CMT, are that overall the response came together very well. Staff showed a great willingness to be involved in recovery efforts, and lessons around internal communications from the June storm response were incorporated quickly. Business units managing council facilities, and internal services, and those with identified emergency response roles, activated their plans quickly and effectively, with a rapid response ensuring an early resumption of business as usual activities for most business units.

There are however some initial areas identified for improvements. Although our communications were strong, there is a need to ensure we have adequate resources for those involved in external communications, including those

associated with social media. Options to improve our ability to rapidly alert, activate and communicate with Council staff outside of regular office hours need to be explored. Continued work is required on the streamlining of certain processes within the CMT, and ensuring the currency of business unit continuity plans.

The Chief Executive has actioned several organisational debriefs to be held over the next few weeks. These will highlight experiences and more detailed lessons to inform Council's response to future disruptive events and emergencies.

## **6. Conclusion**

In conclusion, the actions of the CMT, and the rapid assessments and repairs of buildings, led to a swift re-occupancy of all Council sites, with minimal disruption occurring to Council Services. The CDEM operation was equally rapid, with Council and other agency staff and volunteers working together in a manner which ensured that the city was able to return to a near-normal state within 48 hours of the quake.

This event has provided a valuable learning experience for all involved and will highlight opportunities for improvements of the Council's operational response capability and organisational resilience.

*Contact Officers: Stavros Michael, Manager City Networks, and Mark Constable, Business Continuity Specialist*



## SUPPORTING INFORMATION

### **1) Strategic fit / Strategic outcome**

*The report links to the Council's priorities of being a resilient City and a well managed city.*

### **2) LTP/Annual Plan reference and long term financial impact**

*There is no project reference to the annual plan. There are no financial recommendations in this plan.*

### **3) Treaty of Waitangi considerations**

*There are no Treaty considerations within this report.*

### **4) Decision-making**

*This is not a significant decision. The report options are to receive and note the report.*

### **5) Consultation**

#### **a) General consultation**

*There has been no general consultation.*

#### **b) Consultation with Maori**

*There has been no consultation with Māori.*

### **6) Legal implications**

*There has been no legal consultation on this report.*

### **7) Consistency with existing policy**

*As a report on operational activities, this report does not have any implications to existing policy.*