

# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### Summary:

This was the 6<sup>th</sup> and final of the CDEM Group-based workshops for Project AF8. The workshop was the largest of the series with approximately 130 participants from a wide range of key local stakeholder organisations, eliciting a significant amount of extremely useful material for the project through a highly interactive, productive day.

The scale of participation and the approach of some local authority participants required a modified, two rather than three-phase workshop. Although requested to work and report back as sub-regional clusters some of the local authority teams instead worked in isolation, something that has not arisen in any other workshop and worth noting in future planning.

The workshop syndicates generally took a broad approach to identifying, understanding and meeting the needs of isolated parts of the Group area, where needs were assumed to be most marked, as well as urban areas vulnerable to infrastructure damage and land instability. However, there was a tendency to focus on relatively detailed local issues in several syndicates. Although quite understandable given recent experiences, debriefs, external intervention, and the number of local rather than regional agencies represented, this is also something to be considered in future response planning within Canterbury and South Island-wide.

The centrality and importance of Christchurch-based facilities and services was identified as important, balanced against higher community needs closer to the Alpine Fault.

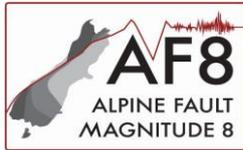
The need for reconnaissance and situational awareness in a rapidly unfolding disaster was important throughout the workshop, although the need to do so in a coordinated manner across the region and in conjunction with neighbouring regions was not as apparent as some other groups areas. Whilst the Canterbury Lifeline Utilities Group has a reconnaissance plan, it was not mentioned during the workshop. Ensuring that the reconnaissance plan is appropriate for the context of a significant Alpine Fault earthquake, inclusive of emergency services and other partner agencies, known to all, and regularly exercised would positively influence any future response.

The need to manage fuel, medical supplies, food and emergency housing in area, isolated by the impacts of the quake and aftershocks, rated highly, as it has in all workshops, although perhaps more so here due to the role of the Canterbury, the ports of Lyttelton and Timaru, Christchurch International Airport, and wholesale distribution centres, as a nationally critical logistics hubs.

Gaps and opportunities tended to revolve around response staff resourcing, locally and more widely, and taking a strategic approach to ensure those involved in future responses are adequately prepared to do so. A need for improved CDEM connection with the marae / local iwi groups, prior to any major emergency, was highlighted.

Emphasis on central business districts (CBD), including in the Christchurch context, indicates a lack of appreciation of the decentralised nature of many larger communities and the services the respective local communities rely on. Future planning needs to apply lessons from the potential undue focus on Christchurch's central city in 2010 and 2011, and a lack of consideration of more recent responses, which inhibited wider responses. An all-of-community approach would be more effective.

The need to lift the current level of planning and response expectations to include Canterbury having a substantial role in any South Island-wide response was an underlying theme throughout this workshop. As was the need for responding agencies and communities to more fully appreciate the impact of a significant Alpine Fault earthquake on their communities and the infrastructure that supports them.



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The experience provided a valuable problem-solving focus for collaboration and relationship-building amongst key CDEM stakeholders and partner organisations in the Canterbury CDEM Group area, as well providing highly valuable insights for Project AF8.

The findings of each syndicate are attached below, accompanied by the gaps and opportunities (Appendix 1.) identified at end of the workshop.

### Venue:

The workshop was held at the Lincoln Events Centre. Briefings and most syndicate work took place in a meeting room which comfortably accommodated the everyone involved. Breakout rooms were used by some syndicate. Impact and infrastructure maps were available in for each syndicate. A good quality data projector and large screen were used throughout. Wifi was available to all participants.

Participants were divided into 6 pre-designated clusters of tables:

- EOC - Local Government  
(Broken into local sub-clusters in phase 1.)
- Emergency Services  
(Combined with Local Government Phase 2 + 3)
- Welfare Services
- Health Services
- Lifeline Utilities
- Science – Impact Intelligence

### Programme:

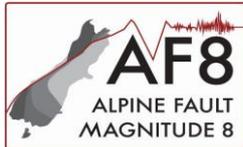
The programme was modified appreciably from the standard format, due predominantly to the number of participants, particularly local authorities working individually, and the length of time take Phase 1 reports backs. Phases 2 and 3 were combined into one session, with all local authorities, emergency services and Group ECC personnel also combined into one syndicate, very ably led by Christchurch City Council CDEM Controller, Anne Constable.

The day was very well received, enthusiastically approached, and productive for all involved.

1000 – 1030	Workshop Initiation
1030 – 1130	Phase 1. Earthquake + Initial Actions. Planning first 12 hours.
1130 – 1200	Reports backs
1200 – 1230	Alpine Fault Science
1300 – 1345	Phase 2. Scenario Update
1345 – 1400	Planning Days 2 to 7
1400 – 1500	Report backs
1500 – 1600	Debrief – Gaps + Opportunities



**Local Government/CDEM + Emergency Services Syndicate at Canterbury Project AF8 Workshop**



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## Canterbury CDEM Group Workshop 14 March 2017

### Outcomes Phase 1 – Initial Response.

#### EOC – North Canterbury TAs

##### 1. Impacts + Consequences

- Community lifelines (Power, Comms, Roads)
- Casualties unknown but expected – some trapped
- Sheltering outside – homes + schools
- Emergency services + response agencies fully committed
- Tsunami response
- Anticipated NZ-wide response
- Environmental damages
- Community helping each other
- Normal emergency response in action
  - EOC activated
  - Establish VHF + satellite comms with agencies (111, Group ECC, MCDEM)

##### 2. Critical Needs

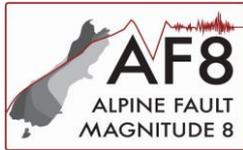
- 1<sup>st</sup> aid + medical response for casualties
- Shelter (Urban + Rural + CDCs)
- Staff supplementation (111, EOC, ...)
- PIM
  - Where to go for help / help each other
  - Manual noticeboards
- Reconnaissance + situational awareness
- Establish calm + sort our own families

##### 3. High-Level Tasks

- Reconnaissance / intel gathering
- PIM
- Protect living
- Shelter + CDCs
- Potable water
- Establish comms / liaison with emergency response agencies
- Evacuation from tsunami
- Assembly areas + airheads

##### 4. Critical Resources

- Generator fuel
- Aircraft – helicopters
- People (111, EOC, response)
- FMCG
- Medical
- NZ control of state highways + airspace
- NZ PIM – on misinformation



# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### EOC – Mid-Canterbury

#### 1. Significant Consequences + Needs

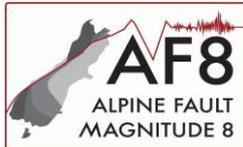
- Life risk – injured
  - Field hospitals?
  - Transport
- People stranded
- Time pressure
- People looking for guidance / direction
- Communication issues – No phone or cell
- Physical consequences – liquefaction
- Shelter
  - Mobility
- Electricity, water, telecommunications
- Getting people from CBDs, work, schools
- Displaced people, separated families, etc
- Extent of damage: casualties
- Self-evacuated coastal communities
- Central business district(s)
- Tourists
  - Health care facilities
- Schools
  - Ethnic minorities

#### 2. Vulnerable communities

- Coastal
  - Businesses / industries
- Ethnic (CALD)
  - Rural
- Tourists/visitors
  - Isolated
- Health patients
  - Commuters
- Elderly
  - Universities
- Schools
  - International students
- Central business districts

#### 3. High-Level Tasks

- Life saving
- Damage Assessment Reconnaissance
- Casualties / fatalities
- Transport links
- Lifelines: road, rail, airport
- Establishing comms with national
- Welfare:
  - Food
    - Shelter
  - Water
    - Welfare provision



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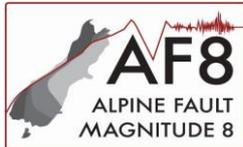
## Canterbury CDEM Group Workshop 14 March 2017

#### 4. Critical Issues / Resources

- Communications
- Transport / mobility resources
- Rapid transport assessment for mobility
- External resources
  - NZDF, Heavy lift, USAR
- Wider regional awareness of impacts
- Resourcing EOC
  - Need to scale + innovate

#### EOC – Selwyn District

- Ongoing major aftershocks
- Additional property + infrastructure damage
- Tsunami?
- Additional fatalities + casualties
- Lifeline infrastructure out
- Staffing issues for response agencies
- Panic in effected communities
- Influx of city residents due to tsunami threat
- EOC established
  - Develop sitrep + action plan
- Community response team
- Assumption that communities will support themselves
- CDCs
  - Medical needs
  - Children at school
  - Family safe
- Road access inland
- Fuel being reserved
- Reconnaissance Arthurs Pass with Police + Fire
- Status of Tranz Alpine train
- Sat phones?
- Trampers / tourists
- Helicopter to Rolleston for SH 73 reconnaissance
- Linkage with Police/Fire/Lifelines



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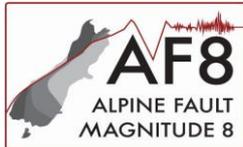
### EOC – South-Canterbury

#### 1. Significant Consequences

- Access / Remoteness
  - Roads, bridges, rail
  - Landslips
- Power / Comms
- Supplies / Logistics
  - FMCG
  - Helicopters
- Staffing for EOC (taking into account families)
- Tourists
- Farming
  - Meat works
  - Milk / dairy factories
- Emergency Accommodation
- Water / Waste Water
- Fuel
- EOC building?
  - Back-up comms
  - EOC set-up
- Industrial area
  - Washdyke
  - Redruth

#### 2. Response / Coordination / Communications Issues / Needs

- Communications
  - Sat phones / BGAN
  - Assume VHF + cell off
  - Portable generators + fuel
- Helicopter / fixed-wing reconnaissance
  - With critical staff for situational awareness
- Information flow from communities and to communities
  - PIM
  - Controlling expectations
- Logistics function:
  - Staffing management
  - Data input
- FMCG – Lock down use of existing supplies



# SAFER Planning Workshop Report

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### Emergency Services

#### 1. Priorities + Consequences

- Own organisation information requirements
  - Who is where?
  - What has happened?
  - What capability?
  - What comms?
- Establish Communications
  - Own personnel
  - Between CDEM + agencies – liaison officers
  - Higher HQs
- Emergency Responses (Fire, Police, Ambulance)
  - Christchurch metropolitan focus
  - No 111 calls = localised responses
  - Internal escalation processes (especially info gathering)
  - Information sharing
- Burnham Camp
  - Deploy LO with comms
  - Establish HQ
  - Comms with HQ Joint Force NZ
  - Tri-Service requests – to JFNZ
  - Information sharing
- Need for resources
  - Establish process + let others know what that is (promulgate)
- Get own organisation operating
- Understand own organisation's imperatives
- Share all information with CDEM, other agencies + HQ
- Ensure telecommunications are in place to enable coordination

#### 2. Information Sharing

- Demands / needs in communities from emergency services
  - How to communicate with communities?
  - Security of available resources?
- CDEM need to know agency capabilities
- Higher HQ needs to know local capabilities + requirements
- Agencies need to know what they are required to do

#### 3. Impacts – to find out:

- Roads / transport
- Communications
- Own infrastructure
- Own resources (fuel, food, water)

#### 4. Cross-Boundary Issues

- Driven by HQ – intel going up must be correct
- Ability to resource + receive influx of services + resources



# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### Welfare Services

#### 1. Issues + Needs

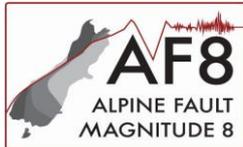
- Where are people assembling
- Lack of communication
- Rejoining families (kids at school)
- Traffic impassable
- Leadership needs to assemble + organise
- High states of anxiety
- No information on vulnerable people + those in remote areas
- Time lag in getting CDCs open
- Tsunami – people fleeing coast
- Limited sat phones + lists of numbers
- How to get WCG together without coms
- Potential for food, water, sanitary facilities, fuel, etc., to be taken when these will be needed for CDCs

#### 3. Immediate Tasks (Gearing Up)

- WCG meets + coordinates ourselves + information delivered / processed
- Key contacts established
- Key messages developed (+ means of communication found / agreed)
- Check for gaps in information + find ways to fill them
- Identify / prioritise key actions
- Liaise with others in response



Health Agency Syndicate at Canterbury Project AF8 Workshop



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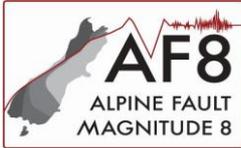
### Health Services

CDHB / Community + Public health:

- Sat-phone tree; MoH, NHCC, CDHB, WCDHB, Ambulance
- Information gathering (with above)
- MOoH/HPO LO to CDEM ECC
- Runner between CDHB, C+PH + CDEM ECC
- Assess:
  - Building status
  - Generators
  - Staff Families
  - Level of damage to communities
  - Consequences to public health
  - Patients
  - Water
- Planning how to get public health staff into West Coast when safer
- Initial public health functions:
  - CDCs
  - Food safety
  - Public Health Messaging
  - Water
  - Sewage
- Internet access – with generators?

Health + Ambulance:

1. Impacts
  - 111 out
  - Radio comms patchy
  - Assumptions:
    - Compromised access
    - Casualties 100s to 1000s
    - Generators
    - Satellite phone capacity
2. Actions
  - Welfare checks - all stations
  - Family first (Responder)
  - Building checks
  - Comms to contact stations:
    - Haast, fox, Franz, Grey, Westport, etc.
    - Queenstown, Wanaka, Twizel, etc
  - Contact:
    - National ambulance – Auckland
    - Liaison to CDEM + health
3. Response
  - Significant initial load in Canterbury
  - Prepare response teams - 4 of 5
    - Access to helicopters



# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### Lifeline Utilities

#### Transport / Distribution

##### Significant Consequences:

1. Significant Consequences:
  - Lack of information
  - Initial staff issues
  - Access – roads, people stuck
  - Power, food, water
2. Response, Comms
  - Recce
  - Aerial survey
  - Access to main wharf Lyttelton
  - Building safety checks
3. High Level Tasks
  - Set up emergency response centre
  - Confirm status critical links
  - Develop a plan
4. Critical Resources
  - Generators
  - Communications
  - Helicopters
  - Structural engineers + asset managers
5. Cross-Boundary Issues
  - Competing demands for resources - Prioritisation



**Lifeline Utilities Syndicate at Canterbury Project AF8 Workshop**



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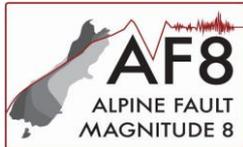
## Canterbury CDEM Group Workshop 14 March 2017

### Science Response

- Gathering earthquake information
- Gathering tsunami information
- Getting earthquake (including aftershocks) + tsunami information to TAs + others
- Inquire into Mackenzie Country impacts
- Consider likely effects:
  - Liquefaction
  - Landslides
  - Lake tsunami
  - Flooding
- Landslide / landslide dam reconnaissance
  - As soon as possible – recognising competing helicopters priorities
- Thinking of setting up geo-tech life safety assessments
  - Geo-tech resource a cross-boundary issue
- How we can communicate with scientists
- Thinking about international science influx



**Report Back Session - Canterbury Project AF8 Workshop**



# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### Outcomes Phase 2.

#### ECC/EOCs + Emergency Services

##### 1. Consequences

- Hazards:
  - Slips
  - Lakes
  - Rock fall
  - Life safety
- Infrastructure:
  - Status + future risks
- Welfare:
  - Food + fuel supplies (+ controls)
  - Accommodation needs
  - Animal welfare: stock + pets
  - Gather intelligence early to help planning long-term needs

##### 2. Response

- Critical medical care + welfare provision
- Communication + reassurance
- Develop tactical plans: Food, water, waste disposal
- Lifelines:
  - Fuels
  - Transport
  - Telecommunications
  - Electricity
  - 3 waters
- Managing volunteers – overseas + walk up
- Managing EOC/ECC resources + staff welfare

##### 3. High-Level Tasks

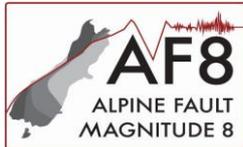
- Stock take + monitoring of needs + resources
- Allocation of resources to needs
- Rotation of responders / Integration of outsiders
- Outside aid reception
- Internally displaced people
- Regional airheads + ports
- Movement priority on roads
- Use all available means to communicate with communities
  - One central set of messages, with local detail added

##### 4. Critical Resources

- Information collection + management systems critical
- Needs prioritisation
- Enough people to staff EOCs
- Emergency services well supported from external
- Air assets, reconnaissance, search + rescue
- Accommodation
- Food, water, generators, toilets
- Telecommunications
- Medical
- Heavy machinery

##### 5. Cross Boundary

- Air, land + sea staging or resources in / people out

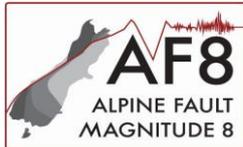


# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### Emergency Welfare

- Shelter:
  - CDCs
  - Hotels
  - Stadiums
  - Tents
  - Airport
  - Marae
- Tourist evacuations
  - To relieve stress on local resources
  - Translation services
- Immediate needs:
  - Injuries / medical
  - Food
  - Household supplies exhausted
  - Water
  - Shelter (home or other)
- Resources including personnel
- Care + protection – children alone
- Coordinated needs assessment for both urban + rural
  - Management + dissemination of data collected
- Financial assistance
- Successful response will be all about linkages + information sharing
- Remote properties
  - Helicopters required to assess need
  - Local knowledge required, so local pilots best
- Animal welfare
  - Reinstate stock water



# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### Lifeline Utilities

#### 1. Roads

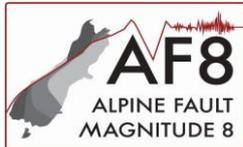
- Removal of trapped from vehicles
- No alpine routes open – up to 3 weeks
- Map routes accessed – especially state highways
- NZTA to take over critical roads

#### 2. Power

- Generation fragile
  - Some stations able to “black start”
- Possible South Island black out
  - 4-7 days then fragile
- Liven from Manapouri Northwards
- Comms plan required for consumers
  - Consumer checks
- Resources from North Island
- Limited power supply to North Island
  - North Island network also fragile

#### 3. Fuel

- Ports: Timaru ok. Lyttelton not
- 4 hours for port inspection following aftershocks
- Port hills tunnel ok
- Bring in more aviation fuel – None stored in Timaru or Nelson
- Airhead to be decided
- Ability to pump of petrol stations with no electricity (Inventory + map now)
  - Emergency services do not store fuel – Will call on CDEM to supply
  - Fuel trucks in transit, but unable to supply from trucks
  - Generators to service stations as a priority
  - Fuel purchase limits?
  - Fuel plan – what is its status
  - Fuel trucks can remove fuel from stations without power
- Farmers have reserves on site
- Mobility of fuel:
  - Into hills via air
  - To coastal communities by boat
- Communications tower generators often in isolated areas
  - Cooperation between telcos required
  - Sharing of generators + refuelling



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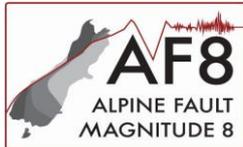
## Canterbury CDEM Group Workshop 14 March 2017

#### 4. Telecommunications

- Unsure which cables would be damaged with undersea movement
  - Modelling of impact required
  - Major works required to repair submerged cables
- First response into rural townships
  - City relatively resilient
- 3 fibre cables through Canterbury – only 2 used
- Restoration North of Christchurch to enable communications with North Island

#### 5. Food

- Supply in the region 3-4 days
- From Christchurch + Dunedin to other areas
- Shifting supply via-ports would take 72 hours
- Roll-on roll-off
- Food supply needs to be given high-priority (Lesson from Kaikoura response)
- Wholesaler staffing ok
- Flying food into West Coast + other isolated communities



# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### Gaps and Opportunities:

1. Many organisations do not have post-quake operational coordination facilities.
2. Largest gap is lack of an effective information (+ intelligence) management system:
  - Taking into account differing organisational requirement, cultures + CIMS use
3. Lyttelton roll-on roll-off capability to be incorporated in planning.
4. Bringing TAs + emergency services together in phase 2-3 highly productive.
5. Need for proactive TA management of emergency water supplies.
6. CDEM (+ TAs) will have crucial connecting + coordinating role.
7. Bringing in Medical Officers of Health requires MoH designation.
8. Marae need to be incorporated in response arrangements in all CDEM Group areas:
  - Misunderstandings around funding for human needs should be clarified
9. Emergency shelter needs substantially more detailed planning.
10. “Boil water” reaction appears tenuous when electricity is out = teachable moment.
11. Systematic approach to communications with communities with no telecommunications.
12. Register of satellite phone numbers needs to be further developed + disseminated.
13. Science coordination within Canterbury, + from Canterbury to elsewhere, crucial
  - Significantly more planning for science + hazards analysis human resource needed
  - Has to include river, stream, surface water, and coastal hazard analysis
14. Geotech resourcing requires substantial planning + management prior to + during response.
15. Substantially better shared situational awareness required for effective AF8 response.
16. Need to more effectively include communities into organised responses – and to appreciate the ability of communities to meet many of their local needs.
17. Interagency collaboration is not as well developed in Canterbury as assumed – as demonstrated in Port Hills fire response.
18. Canterbury local authority coordination, under the direction, coordination, + control of Group Controller, is still a work in progress.
19. Need to share scenario + planning with North Island lifeline utilities + all agencies.
20. Needs assessments must be jointly planned + delivered, with appropriate agencies, assuring all areas are covered +, where necessary, revisited regularly.
21. Application to effectively capture assessments electronically essential
  - Look to Emergency Management Southland + LINZ examples
22. Need to consider other South Island response coordination centres, including Southland.
23. Need to increased capability + discipline developing, maintaining, disseminating + making use of CDEM Group-wide Situation Reports and Action Plans.



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24. Reconnaissance coordination is crucial and not currently well covered.
25. The Canterbury Lifeline Utilities Group's reconnaissance plan was not mentioned during the workshop, but could be the basis for a more comprehensive reconnaissance, remote community connection and emergency welfare response plan.
26. South Island-wide coordination of air resources + response will be critical.
27. Need to integrate NZDF telecommunications into wider CDEM-led response.
28. How will South Island-wide priorities, resources + taskings be determined + managed?
  - Burnham Military Camp may be most appropriate coordination centre location
  - Clear need to coordinate all air resources + taskings, especially helicopters
29. Although the Christchurch Justice and Emergency Services Precinct (CJESP) combined EOC was not mentioned in the workshop, as the project is not yet complete, this facility will no doubt play a significant role in any appreciable responses in Canterbury in the future. The role of the CJESP EOC in coordinating responses to a AF8-scale earthquake should be explored with some urgency.



Canterbury Project AF8 Planning Workshop



# SAFER Planning Workshop Report

## Canterbury CDEM Group Workshop 14 March 2017

### **Appendix 1. Organisations in Canterbury Response Planning Workshop**

#### **EOC – Control**

Canterbury Regional EMO  
Christchurch City Council  
Kaikoura DC  
Hurunui DC  
Waimakariri DC  
Selwyn DC  
Ashburton DC  
Timaru DC  
Waimate DC  
Mackenzie DC

#### **Emergency Services**

NZ Fire  
NZ Police  
St John Ambulance  
NZ Army  
RNZAF  
RNZ Navy

#### **Welfare Services**

Group ECC  
MSD  
Ngai Tahu  
Te Puni Kokori  
SPCA  
CYF  
MPI  
Red Cross  
ChCh & Canterbury Tourism

#### **Health Services**

CDDHB  
Community + Public Health  
St John Ambulance

#### **Science**

Environment Canterbury  
GNS Science  
University of Canterbury  
University of Otago

#### **Lifeline Utilities**

NZTA  
Orion Energy  
Port of Lyttelton  
Main Port Timaru  
Kiwi Rail  
Spark  
Ashburton Electricity  
Beca  
Meridian  
Contact Energy  
Vodafone  
Harrison Grierson  
Genesis Energy  
Enable NZ  
Alpine Energy  
EA Networks  
Allied Petroleum  
Foodstuffs  
Sicon  
Heb Construction