



# Christchurch Recovery and Rebuild Issues and Challenges

---

Christchurch City Three Year Plan  
Christchurch Ōtautahi

## Christchurch City Council

## Christchurch Recovery and Rebuild Issues and Challenges

### Context

The series of devastating and destructive earthquakes throughout 2010 and 2011 sets the stage for the key issues facing the Council. In many respects 'recovery' is the dominant driver for the Council in particular and for Christchurch as a whole: there is little that can be adequately responded to without taking into account the recovery from the earthquakes.

Recovery can be measured by the ability of communities to rapidly regain what they have lost and to improve upon what they had through the rebuilding, restoration and enhancement that occurs. The recovery is likely to be at least a decade long process covering much if not all of the period of this Plan. Other players in the recovery such as central government, business organisations, Ngai Tahu, and the health sector, will clearly play their part, with Council working together with them.

There are also underlying issues, such as revitalisation of the central city, that remain relevant in the post-earthquake environment. This means that the Council will need to balance the demands and opportunities of the earthquake recovery with maintaining a focus on achieving its long term goals. It will need to do so in a manner that is bold to the future but also fiscally responsible, bearing in mind the cost to ratepayers.

### Earthquake Impacts and Effects

A direct effect of the earthquakes for Christchurch City has been a net population decrease of 13,500 (3.6 per cent) in the two years to June 2012, especially in eastern Christchurch. To date some 7,822 homes in Christchurch City have been zoned 'Red' by the government. The Red Zone includes land that is so badly damaged by the earthquakes it is unlikely it can be rebuilt on in the foreseeable future.

In terms of physical infrastructure, 100 kilometres of water mains and several hundred kilometres of sub-mains are likely to need replacement. It is likely that 600 kilometres of gravity sewers will need replacement, and six wastewater pump stations will need to be rebuilt. For stormwater, approximately 11 kilometres of the Avon River stop banks have been repaired and 11 kilometres of timber drains will need to be repaired. The total estimated damage to the water network, wastewater system, and stormwater system is likely to be several billion dollars.

The earthquakes also damaged 1,000 kilometres of Christchurch City's street network (carriageways, kerbs and channels, footpaths and cycle paths), of which 42 kilometres is severely damaged and located within the central city, eastern and southern suburbs. In excess of 50,000 individual road faults have been recorded on 45 per cent of roads in Christchurch. Six bridges are beyond economic repair, 15 are requiring major refurbishment and 50 are requiring medium to minor repairs.

The major community facilities that need rebuilding or repairing include both a metropolitan and a north-eastern sports and recreation facility, the Christchurch Town Hall, the Central Library, and the Convention Centre. The cost of these projects are discussed in the Financial Strategy. The Council has also lost several hundred of its 2,645 social housing units as uninhabitable due to the earthquakes.

### The Key Challenges

There are several very real issues crucial to the city's recovery that present wider challenges for Christchurch. The Council will need to be actively involved in planning and addressing these issues, through its own activities and via its role in many of the programme areas that are part of the city's wider Recovery Strategy as developed by the Canterbury Earthquake Recovery Authority

## Christchurch City Council

## Christchurch Recovery and Rebuild Issues and Challenges

### Demographic Change and Population Movement

Like the rest of New Zealand, Christchurch's population is ageing and diversifying. For example, those aged 65 years and over will increase from 14 per cent of the population in 2011 to 23 per cent in 2031 (and nearly double in number from 53,000 to 95,000 people). This is likely to change how physical infrastructure (e.g. roading and transport) is shaped and provided as well as broadening the demand for community services and their delivery (e.g. recreation activities).

There will also be demographic changes arising from the reduction of the city's population in the short term, especially the current loss of families and young people, the expected rebuild workforce, and the long term uncertainty as to future age structures, migration and rates of population growth. Population modelling undertaken since the earthquakes suggests a likely scenario of the city's population recovering to the pre-earthquake growth trend within 10 years. Overall, population and household numbers in Christchurch City are expected to lag the pre-earthquake expectations by about seven years.

A key challenge will be how to deal with the effects of the geographic shifts in population across the city. These shifts will be around the new residential development in greenfield areas to accommodate displaced residents and allow for future growth. As part of an accelerated programme to ensure adequate housing choices are available, land for approximately 9,000 households has been rezoned in Christchurch, which will contribute towards the supply of housing available to the market. The judicial resolution of the proposed urban boundary changes to the city's District Plan will clearly have a large bearing on the location and sequencing of new residential growth.

### Council Activity Focus

- Achieving the recovery of the central city
- Ensuring adequate land capacity and availability across the city for its residential and commercial needs.
- Encouraging the development of greenfield areas with regard to changing populations, e.g. older adults and smaller households.
- Working with communities on the renewal and recovery of suburban centres, including implementation of their Masterplans.
- Ensuring that the Council can still achieve its long-term housing intensification goals.
- Understanding the ageing and diversifying population to plan for the services that will be required by the community.

### Infrastructure

The planning and resourcing of the 'horizontal' physical infrastructure of roads, fresh water, wastewater, and storm water systems during the rebuild period will be a major undertaking for the Council. Infrastructure priorities have changed from a growth-related capital replacement programme to earthquake recovery mode, taking the opportunity to achieve better results where it is fiscally sustainable to do so.

The rebuild of Christchurch's earthquake-damaged roads and underground services has been prioritised to first fix the worst-affected areas that impact on the most people. Where at all possible, the standard of the infrastructure will be improved with modern materials and designs. In most cases, infrastructure strength will also be improved so that it can stand up better if there are severe earthquakes in the future. Rebuilding this 'horizontal' infrastructure is likely to cost around \$2 billion dollars and take until 2016 to complete.

During the next decade, the ability to supply appropriate levels of infrastructure at the right place, right time and right price will influence the release and availability of land, including adequately serviced commercial, industrial and residential land. This 'unplanned' infrastructure supply will now be brought forward so development timetables can be met. The risk of a short to medium term oversupply of greenfield land and surplus community infrastructure with long-term costs to the community will need to be managed very carefully. An environment of forecasted rises in costs for energy and infrastructure materials will also demand forward looking land use and transport planning strategies.

## Christchurch City Council

## Christchurch Recovery and Rebuild Issues and Challenges

Critical to the recovery will be the need for transport systems to keep Christchurch ‘moving’ in the face of population shifts within the city. The short term transport focus is to replace and repair the existing transport system and to support earthquake recovery to keep the city moving. This includes a commitment to better management of the network to improve the efficiency of the Council’s strategic road network, support the Roads of National Significance, support the recovery of the public transport network and embrace opportunities to develop the cycle network. In the longer term, the recovery presents an opportunity to improve travel choice and to transition from an auto-dependent form of movement to other more sustainable forms such as cycling and public passenger transport.

The rebuild has created an opportunity to take advantage of the roll-out of high-speed broadband, particularly within the central city. This is expected to act as a catalyst for realising new digital technologies. Bringing Christchurch up to a first-tier international standard is an opportunity to enable many sectors of the local economy to develop business, commercial and educational services in ways that have not previously been possible.

**Council Activity Focus**

- Ongoing capital expenditure to restore wastewater networks, stormwater systems, and flood protection works.
- Completing the upgrading of Banks Peninsula water supplies.
- Investment in new infrastructure to meet the needs of urban growth.
- Renewal and rebuild projects to maintain the road network, increase road safety, support growth areas and the city’s recovery.
- Investment in walking, cycling and public transport infrastructure.

**Social Change****Housing**

Adequate and affordable housing is a pre-existing challenge that is now a major recovery issue for the city. The Red Zone areas have resulted in some people being left with little equity to rebuild or purchase new or even existing homes. The Council will need to determine its role in facilitating or encouraging the provision of affordable housing, including affordable rental housing. The Council also has a direct role in the housing of low income people through the replacement and rebuilding of its damaged social housing stock.

Housing the temporary workforce is also an area that may have accompanying demands on council services and possible social impacts to address. The construction sector will see sizeable growth associated with the rebuild, with an additional 23,900 workers being required during peak demand over four years. If industries associated with construction are also considered, an additional 36,000 workers will likely be required.

Although there is a clear need to provide considerable land for housing there are inherent risks of an over-supply of new residential land, which may in turn undermine intensification objectives in the Greater Christchurch Urban Development Strategy (UDS). Sustainable growth goals of greater urban housing densities may not be so easily realised in the residential recovery, given that some displaced communities are not likely to immediately see some parts of the city as viable or affordable living options. A further challenge therefore is how to foster the opportunities that brownfield development may provide, including in the central city, to support housing displacement, allow for future growth, and to cater for labour force needs.

**Council Activity Focus**

- Repairing damaged council social housing stock.
- Supporting the provision of a range of accommodation to meet the needs for the temporary reconstruction workforce.

**Community Wellbeing**

Christchurch has a diversifying population in every sense of the word – culturally, economically, and socially, partly due to the effects of the earthquake, and partly due to ongoing demographic changes. Integrating new arrivals to the city, addressing impacts of shifting settlement patterns, and restoring and maintaining the quality of life of its residents will be areas that the Council will need to play a role in.

Being able to accelerate the recovery will be vital for community wellbeing. The Council will need to be in a position to identify, harness and support the evolving energy and activity in local communities to help them develop the necessary strength and resilience to recover and rebuild themselves. Planning and providing for community facilities and services will need to be undertaken in conjunction with those communities, in both greenfield and brownfield areas of the city as part of Council’s commitment to localised recovery.

Across Christchurch, there is a clear need for a co-ordinated and integrated approach to the identification, assessment and resolution of recovery related community issues. There are a number of existing council-related programmes and initiatives underway, e.g. the Stronger Christchurch Infrastructure Rebuild Programme, Suburban Centres Recovery Programme, Facilities Rebuild Plan, and hazard studies and modelling. The Council will continue to review the effectiveness of its work programme and keep working with other key agencies, including the Canterbury Earthquake Recovery Authority (CERA) and a range of government ministries.

## Christchurch City Council

## Christchurch Recovery and Rebuild Issues and Challenges

The Council will continue to plan for a healthy and strong community. This will include restoring the provision of accessible sporting, recreational, cultural and events opportunities, creating health-orientated environments when developing its infrastructure, and playing a role in particular health and safety matters such as alcohol related issues. Re-evaluating and conserving heritage features will also be a part of the Council's focus on community wellbeing and identity.

**Council Activity Focus**

- Resourcing and supporting communities as they recover and develop, e.g. assisting community-based groups to build their capacity to run activities and events.
- Undertaking safety projects that improve safety from crime, safety in public places and on the road, and increase people's perceptions of safety in the city.
- Manage, produce and support events such as the Ellerslie Flower Show, the FIFA Under 20 World Cup, World Buskers Festival, Christchurch Arts Festival, Summertimes, and Kidsfest.

**Community and Recreational Facilities**

The Council is planning for the future of its 1,200 council-owned buildings and 2,649 units of social housing, many of which suffered earthquake damage. A Facilities Rebuild Plan is being developed and implemented to assist the Council in deciding what facilities will best meet the long-term needs of the community. The facilities include:

- Sport and recreation facilities
- Libraries
- Social housing
- Facilities on sports grounds and neighbourhood/regional parks
- Community centres and community halls
- Early Childcare Learning Centres.

Existing council facility strategies informing this process include: the Libraries 2025 Facilities Plan; Aquatic Facilities Plan; Draft Metropolitan Sports Facilities plan; Social Housing Strategy; and the Strengthening Communities Strategy. The Council is reviewing the implementation of these plans to see how they fit with our changed circumstances, e.g. identifying gaps and/or additional needs. Ensuring people have equitable access to its facilities will be a continuing priority for the Council.

The Council understands there will be some damaged facilities the community wants to retain. However, some hard decisions will need to be made about buildings that are too badly damaged or will cost too much to repair. The Council will consider a number of factors before a decision is made about each building including:

- the level of damage
- the level of insurance cover
- the building's heritage value
- how often it is used
- its long-term benefits for the community.

**Council Activity Focus**

- Prioritising significant community facilities for repairs where possible, e.g. the Bishopdale Library and Community Centre; library, museum and community hubs in Linwood and in Sumner; community centres in South New Brighton and in Fendalton; and the Akaroa Museum.
- Building new aquatic facilities: a Metro Sports Centre in the central city, a sport and recreation centre in the east.
- Funding to contribute to a replacement all-weather athletics track, a test cricket facility at Hagley Oval, a replacement international-level hockey facility and land remediation at Kerrs Reach for a combined storage and administration facility.

- Proposed new libraries in the central city, Halswell, Hornby and Belfast.
- Proposed new service centres in Halswell and Hornby.
- Upgrading and re-opening the Art Gallery.

## Christchurch City Council

## Christchurch Recovery and Rebuild Issues and Challenges

**Economic Challenges**

The Christchurch economy has been buffeted from the impacts of both the earthquakes and the global economic crisis. While the New Zealand economy continued to grow slightly following the 2009 recession, the estimated gross domestic product in Canterbury for the year ended March 2012 was down two per cent from the year ended March 2010. Some key economic challenges include understanding the post-rebuild economic growth path, the ageing population effects on the workforce and its skill base, and the temporary or permanent relocation of business activities.

Due to the earthquakes there has been considerable loss of value to the city's asset base. The economic bright spots have been the performance of the agricultural sector, which has been largely unaffected by the earthquakes, and the strong trading activity of the Lyttelton port and Christchurch airport. However, both the tourism and visitor accommodation sectors have been hard-hit following the earthquakes. Christchurch's advantage as the gateway to the South Island is likely to be realised once again as new accommodation facilities are developed over the next ten years and visitor numbers start to improve.

A fully restored and functioning central city is vital to the recovery of Christchurch. CERA's Christchurch Central Development Unit (CCDU) has released its blueprint for the central city and the Council is working closely with the CCDU to make this a reality. The first two anchor projects – the Avon River Precinct, and the North Frame and a portion of the East Frame – have been initiated. As a direct contribution to the economic and cultural recovery of the central city, the Council has committed funding to the rebuilding of major community facilities in the Christchurch Central Recovery Plan to support economic recovery. Details may be found on page 52.

Once the rebuild starts, the construction sector will be expected to lead a sustained boom that will quickly drive the Canterbury economy, and underpin the national economy. When this boom starts to slow as building work nears completion, it will be imperative that the 'underlying' (non-construction) growth is similarly maintained. Diversification of the local economy and rebuilding of key sectors such as manufacturing, tourism, and education, will provide this strength.

The growth and retention of employment opportunities will also be essential in attracting people and residents to Christchurch, which will help meet the Christchurch Central Recovery Plan goal of encouraging more people to live in the central city. The economic recovery of the local economy will be based on the Council continuing to play its part making Christchurch a great place to work, live, visit, invest and do business.

**Council Activity Focus**

- Projects to deliver on the Christchurch Central Recovery Plan to maintain the primacy of the central city as a focal point for business development and for greater residential living.
- Ensuring there is an adequate supply and distribution of serviced land for business development.
- Supporting the Canterbury Development Corporation (the Council's economic development agency) in its work to progress implementation of an updated Christchurch Economic Development Strategy.
- Supporting the Christchurch Canterbury Tourism to actively market the Canterbury region in its domestic and international tourism campaigns and events,
- Continuing to put a sustained effort into processing of building and resource consents to support the rebuild.
- The rebuild of ten major community facilities that will be replaced or repaired over the next ten years

including:

- Christchurch Town Hall
- Convention Centre
- Christchurch Art Gallery
- Central City Sports Stadium
- Central City Multi-sport Facility
- Central Library.

## Christchurch City Council

# Christchurch Recovery and Rebuild Issues and Challenges

### Environmental Issues

Improved resilience is a key theme across many of the environmental issues facing the City. The environment is an area where many of Council's activities have been compromised by recovery needs, and where it will need to continue to have a long term focus while addressing short term imperatives.

Repairing waterways and restoring ecosystems are clear health and environmental priorities. The immediate environmental impacts from liquefaction have reduced the storage capacity of the waterways, and with some stop banks being damaged, the risk of flooding has increased. There is also a greater risk of coastal flooding and uncertainty due to changes to dunes, sand bars, channels and the estuary mouth area.

In the longer term, understanding the impacts of climate change, e.g. the predicted effects of more frequent and more severe weather events, will likely require the development of both mitigative and adaptive strategic responses. The recovery represents an opportunity to develop resilience by taking climate change into account when developing communities and planning and providing for infrastructure.

The earthquakes have highlighted that Christchurch is susceptible to natural hazards including floods (river and coastal), tsunamis, earthquakes, slope instability, rockfall, droughts, snow and wind. To fulfil its hazard planning and emergency management responsibilities, the Council is taking a long-term approach to managing natural hazards, recognising that while there are significant barriers to effective risk mitigation, risks from natural hazards will need to be assessed and unacceptable risks reduced. The long-term suitability of some of Christchurch's land for the redevelopment, such as the Port Hills (e.g. resolving rock fall issues), will also need to be determined.

Ensuring adequate water quantity, safeguarding groundwater supplies and maintaining water quality will be vital to preserve water supply. The Council will have an active role in managing its water resources for the city's long term environmental integrity and economic productivity. It will also have a strong ongoing interest in water management in Canterbury and how it may impact on the city. This will mean continuing to develop its ability to integrate the management of the 'three waters' of long term drinking water supply, sewage treatment, and stormwater disposal.

The Council will have the issue of waste to address. There is the short term removal of demolition waste, estimated by CERA to be in excess of four million tonnes, including the demolition of over 1,000 commercial buildings and upwards of 10,000 residences. In the longer term there is the disposal of extra levels of construction waste, with the volume, and therefore impact and cost on both temporary and permanent landfill sites, still unknown. Wastes disposed to land, both demolition and construction, will need to be reduced by the re-use of demolition and construction materials, and design and construction techniques that can reduce the waste generated from construction activity.

#### Council Activity Focus

- Improving water supply, e.g. through new, deeper wells and the thorough treatment of pumped water.
- Waterway basins detention and treatment programmes.
- Managing the clean up and disposal of waste materials generated by the recovery.
- Provision for management of the Burwood Resource Recovery Park to deal with earthquake-related waste.
- Provision for regular inspection of earthquake waste demolition storage sites and clean fill sites.

### Governance and Engagement

The Council will have an even more complex and challenging role than usual when it comes to providing sound leadership, effective and meaningful communication with its communities, integrating the recovery process, and managing competing recovery demands. For example, choices will need to be made on deciding on replacement or betterment outcomes, faster or slower approaches, cheaper or costlier options, or familiar or different solutions, all in conjunction with other stakeholders.

Ensuring good ongoing public engagement, participation and deliberation will be vital if the people of Christchurch City are to be at the forefront of the recovery process. Experience to date indicates that regular attention will need to be given to more flexible ways of working and communicating with the community, ensuring co-ordination of council-related planning and remedial work, identifying simple ways of getting information updates across to the community, and clarifying jurisdiction and boundary issues around decision-making by the Council and others.

The Council's own governance arrangements, continuing to develop those it has with others such as Ngai Tahu, and its relationships with central government (including CERA) will be paramount considerations for effective recovery. Taking the opportunity to clarify decision-making boundaries and jurisdictions between agencies is likely to be an ongoing issue in this area. Finding ways to maintain momentum from the relevant programmes and plans in CERA's Recovery Strategy will also be needed. The Council will also need to build on existing strategic partnerships with others such as those it has through the UDS as it prioritises, integrates and aligns recovery actions.



## Christchurch City Council

## Christchurch Recovery and Rebuild Issues and Challenges

The recent Local Government Amendment Act (2012) and ongoing local government reforms on how the structure and function of local government will operate, including in Christchurch's case the future of Environment Canterbury, will need to be considered and consulted upon by the Council. This will require the ability to respond to any regional and local authority reorganisations that take place and their long term impacts. This will also likely involve the Council continuing to develop strong working relationships and governance arrangements with its UDS partners in the pursuit of achieving sustainable growth and development outcomes for the region.

Other legislative changes that the Council will need to respond to include those that are stemming from reviews of the Building Act, the Resource Management Act, and the Sale and Supply of Alcohol Act, some of which will have cost and compliance implications for the Council.

#### Council Activity Focus

- Developing effective and long lasting means of engaging with the community, including developing a communications strategy to inform residents about the Council's priorities.
- Developing more effective and coherent governance and communications arrangements with other agencies involved in recovery activities.
- Having the resourcing and capability to effectively respond to legislative change.
- Participating in the national discussions about the roles and functions of local government.

#### Conclusion

The impact of the earthquakes requires the city to reposition itself for the future and adapt to a changing environment. In doing so, the Council will need to build upon and responsively evolve its existing strategic planning to address recovery issues as they evolve and, as shown by overseas experience, to keep ensuring that its people are at the centre of the recovery.

The rebuild will undoubtedly stretch the city's resources and capacity. The facilities and infrastructure rebuilds, and ensuring there is sufficient land available for commercial and residential development will be key priorities. The targeting of resources to the recovery of the central city to regain its primacy as the hub of the Christchurch economy will also demand attention. Given the Council's limited resources it may have to defer addressing some issues whilst prioritising others. All of this will occur in a context of public expectation that the quality of the rebuild will improve the general environment yet not impose excessive costs on ratepayers. Sound fiscal management will be critical and will shape much of the Plan as Council tries to balance short, medium and long term needs.

Clearly there are also wider trends and events happening in and outside of New Zealand that the Council will need to take account of if it is to achieve the recovery outcomes it desires for Christchurch. Global trends and national policies will impact differently on different sectors of the population in terms of access to health, housing, employment and education. These factors will further shape how the earthquake recovery takes place, with the recovery in many ways representing an opportunity to address them in a forward thinking, proactive manner.

