

# **HORIZONTAL INFRASTRUCTURE GOVERNANCE GROUP**

Representing the Department of the Prime Minister and Cabinet, Christchurch City Council and the New Zealand Transport Agency

*A Facilitator for the Rebuild of Christchurch*

## **Report on the Horizontal Infrastructure Governance Group**

**To the Minister supporting Greater Christchurch  
Regeneration**

**The Mayor Christchurch City Council**

**From the Independent Chair**

Hon Nicky Wagner  
Minister supporting Greater Christchurch Regeneration

Hon Lianne Dalziel  
Mayor  
Christchurch City Council

Dear Minister and Mayor,

I have attached to this memo a report for the Cabinet and for the Council.

In putting this report together, I have, with my colleagues on the Horizontal Infrastructure Governance Group, confined comments to those of the operation and lessons learnt during what was a messy beginning to a structure which delivered a completed rebuild of the horizontal Infrastructure

It must be said that not everyone agreed with decisions made at certain stages of the rebuild as there were and will continue to be tensions between funders on what each expected and what was delivered.

The group dynamics on the Horizontal Infrastructure Governance Group were excellent and the decision making was unanimous.

I appreciate and thank the current and former members of the Horizontal Infrastructure Governance Group for their dedication to the task of rebuilding Christchurch's infrastructure.

Where we as a group, and myself as Chair could have improved was in keeping regular contact with the two of you on how the projects and programme were progressing and any likely delays or other matters which we felt should have been raised.

I appreciated the support and feedback from you whenever I meet with you and the former Minister for his feedback and the staff from the Christchurch Earthquake Recovery Authority, the Department of Prime Minister and Cabinet, the Christchurch City Council and the New Zealand Transport Agency.

A handwritten signature in dark ink, reading "Chris Mackenzie". The signature is written in a cursive style with a long horizontal stroke at the end.

Chris Mackenzie  
Independent Chair  
Horizontal Infrastructure Governance Group

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## Report on the Horizontal Infrastructure Governance Group

### 1. Purpose

On 7 July 2017, I wrote to the Minister supporting Greater Christchurch Regeneration and the Mayor of Christchurch City Council advising them that the Horizontal Infrastructure Governance Group (HIGG) held its last meeting on 27 June 2017, and that I would be preparing a report from a governance perspective on the Horizontal Infrastructure programme for Cabinet and the Council.

As the Independent Chair of the HIGG I have now completed my report, with input from the current Crown and Council HIGG members. This report covers the following:

- Background to the HI governance arrangements
- Key areas of focus for the HIGG
- Key programme achievements
- Learnings
- Recommendations.

### 2. Background to the Horizontal Infrastructure governance arrangements

Following the Canterbury earthquakes of 2010 and 2011, the Stronger Christchurch Infrastructure Rebuild Team (SCIRT) Alliance and the Client Governance Group were created to rebuild the damaged underground pipes, bridges, roads and retaining walls (horizontal infrastructure) within budgets and eligibility criteria.

SCIRT was a mix of public and private organisations, and agreed to participate in a contract arrangement called an Alliance. The SCIRT Alliance comprised three public entities (CERA, NZTA and CCC) and five private contractors (City Care, Downer, Fletcher Construction, Fulton Hogan and McConnell Dowell).

The programme structure provided two governing bodies for the horizontal infrastructure rebuild, with different membership and functions. These bodies were initially the SCIRT Board and the Client Governance Group (CGG) that was replaced by the Horizontal Infrastructure Governance Group (HIGG).

The focus of this report is on the horizontal infrastructure governance arrangements for the three public entities - CERA (DPMC from March 2016), NZTA and CCC.

Joint governance and management of the horizontal infrastructure rebuild formally commenced in December 2011 when the public entities established the Client Governance Group. The purpose of the CGG was to provide leadership so that CERA, NZTA and CCC could work together to deliver essential repairs to the City's Horizontal Infrastructure<sup>1</sup>. The CGG was made up of three full members - one from each of the owner-participants (CERA, NZTA and CCC) and one Independent Chairperson appointed by the Minister for Canterbury Earthquake Recovery.

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<sup>1</sup> New Zealand Government, "Horizontal Infrastructure Governance Group: Terms of Reference", (New Zealand Government, February 2013), p. 2.

In May 2012, an Independent Chair for the CGG (Mr Mark Ford) was appointed for a four-year term expiring in April 2016.

The CGG was supported by two additional groups – The Scope and Standards Committee and the Asset Owners Group.

Following the signing of the Cost Sharing Agreement (CSA) in June 2013, new programme arrangements were put in place, including a new governance structure.

In October 2013, the CGG was replaced by the Horizontal Infrastructure Governance Group (HIGG)<sup>2</sup>. The HIGG was established with new Terms of Reference, to address the ambiguity about roles and responsibilities<sup>3</sup>.

A Memorandum of Understanding<sup>4</sup> (MOU) formalised the governance and management of the Horizontal Infrastructure rebuild within the City of Christchurch. This included parameters for the HIGG including its Purpose, Membership, Term and Key Roles. The new group's focus was on funding, scope and standards, eligibility, prioritisation, transition and programme close out.

One of the key changes made at the time of the Cost-sharing Agreement, was the withdrawal of the indemnity which had been in place since 2 May 2011 and amended on 21 June 2011 and 18 March 2012. The removal of the indemnity enabled a more thorough scrutiny of projects before they proceeded to construction and this coupled with the changed design standards enabled more projects to be completed within the budget. In hindsight, while the changes made to the design guidelines were clear to members of the HIGG, the changes could have been explained in detail to all parties so that there were no surprises as they were being implemented.

The Horizontal Infrastructure Management Team (HIMT) was also established to support HIGG in its role, by providing independent advice and secretariat support<sup>5</sup>.

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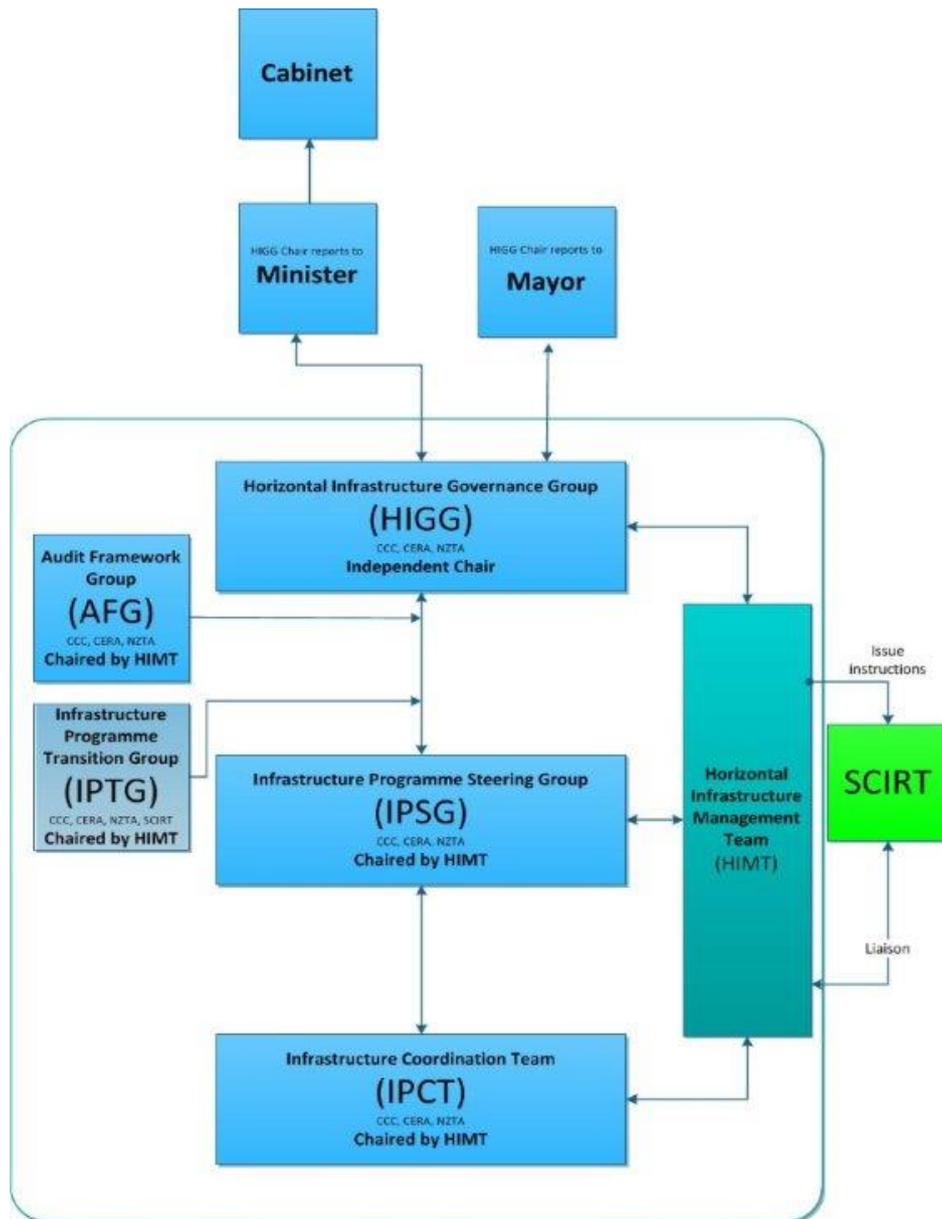
<sup>2</sup> Office of the Auditor General, "Effectiveness and efficiency of arrangements to repair pipes and roads in Christchurch – follow-up audit", (Office of the Auditor General, May 2016), p. 20.

<sup>3</sup> Ibid. p. 21.

<sup>4</sup> Formalised 26 September 2013 between the Canterbury Earthquake Recovery Authority, The New Zealand Transport Agency and the Christchurch City Council

<sup>5</sup> Ibid. p. 20.

The refreshed governance arrangements post October 2013 are illustrated below:



The Ministerial expectations of the Independent Chair role were set out in the Letter of Expectation dated November 2013, and confirmed the role transferred across from the previous Independent Chair of the CGG.

From February 2014, Chris Mackenzie was acting Independent Chair following Mark Ford being taken ill and in October 2014 Mark passed away. Mark was a visionary who provided leadership and made a significant contribution to the governance of the Canterbury Earthquake rebuild.

In November 2014 Chris Mackenzie was appointed as the replacement Independent Chair of the HIGG.

The initial term of the HIGG (as agreed between the Crown and Council) was until 19 April 2016. This was formally extended to 30 June 2017 by the previous Minister for Canterbury Earthquake Recovery.

In February 2016, the HIGG endorsed a change to the governance structure in support of the transition of the horizontal infrastructure programme from SCIRT to the asset owner (the Council). This resulted in responsibility for the chairing, managing and administration support of some of the support committees transferring to Council.

The Office of the Auditor General's follow-up audit in 2016 concluded that the new governance framework clarified roles and responsibilities and better met the needs of the SCIRT programme<sup>6</sup> and addressed concerns identified in their 2013 audit.

### 3. Key areas of focus for the HIGG

The purpose of the HIGG was to provide effective governance of the HI rebuild programme, with corresponding advice and assurance to the Crown and Council (as client funding organisations) that the rebuild programme was delivered on-time, to budget and to specification.

While on occasions, there could have been additional projects committed within the programme, it was our role to work within the budget appropriated by the Crown and the NZTA and Council.

It also provided the formal communication linkage between the SCIRT and the three funders.

One area which was a constant source of debate between the Crown and the Council, but also on occasion the public was the early announcements made by various organisations led to an unrealistic expectation of the standard to which the repairs would be completed. While there were no doubt reasons for the statements, it was continually in the background, particularly when the Cost-sharing Agreement specifically mentioned the standard of repairs to be funded by the Crown.

### 4. Key programme achievements of the HIGG

The HIGG's key achievements are summarised as follows:

#### 4.1 Governance and management via multi-party collaboration

The HIGG governance and management of the HI programme was achieved through multi-party collaboration. Following decision making and instructions from the HIGG, the HIMT conveyed these to SCIRT (representing the HIGG) along with communication and liaison, and the supporting HIGG sub-committee governance structure.

All HIGG sub-committees developed formal terms of reference (endorsed by the HIGG) and the three funder members adopted a collaborative "no surprises" approach to their respective roles and responsibilities to achieve a consensus view on all matters.

#### 4.2 Horizontal Infrastructure Programme management and reporting<sup>7</sup>

The Infrastructure Programme Steering Group (IPSG) provided overall HI SCIRT programme management to ensure compliance with funding eligibility, meeting appropriate levels of service and delivering value for money.

Under HIGG delegations the IPSG specifically:

- Reviewed, approved and endorsed Projects into the HI programme within approved funding
- Reviewed and monitored progress and performance within scope and financial parameters
- Oversaw the development and delivery of a Communications strategy and Transition Plan

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<sup>6</sup> Office of the Auditor General, "Effectiveness and efficiency of arrangements to repair pipes and roads in Christchurch – follow-up audit", (Office of the Auditor General, May 2016), p. 20.

<sup>7</sup> SCIRT was involved in these groups as required

- Provided monthly programme management reporting for both SCIRT and Non- SCIRT work programmes.
- Worked through and resolved technical issues
- Resolved other financial and non-financial issues as required
- Provided a regular and formal forum where programme matters could be discussed
- Made recommendations to the HIGG

### 4.3 SCIRT project approvals<sup>8</sup>

The HIGG Infrastructure Programme Co-ordination Team (IPCT) provided technical expertise, guidance and recommendations to the IPSG on the individual SCIRT projects regarding eligibility for cost-share funding and completion to client funder approved design guidelines.

### 4.4 Work scope eligibility

In 2014 work scope eligibility focused on repairing and rebuilding damaged infrastructure where damage was impacting on the ability of the network to perform and function as intended. This was a shift from a focus on repairing or replacing damaged assets particularly where this work was considered to be not maximising the value to the asset or network for the dollar spent. Under the new network guidelines, the aim was to apply an asset management approach to remaining defects. Each defect was to be compared against set criteria to ensure the repair achieved value for money and delivered network performance, serviceability and functionality outcomes.

This resulted in all eligible work scope on projects remaining being completed within available cost share funding and the SCIRT delivery timeframe.

The network performance approach was supported in the Independent Assessors Report – refer section 4.7

### 4.5 Horizontal Infrastructure risk and assurance framework

The HIGG Audit Framework Group (AFG) provided assurance that the programme risks were appropriately identified and mitigated. Assurance was delivered through the development, implementation and reporting on a risk based assurance work programme as approved by the HIGG.

The assurance work programme was developed based on the key risks identified in the shared client funder Horizontal Infrastructure Programme Risk Register.

On behalf of the HIGG the AFG developed, monitored and reported on the management of the risk mitigations, which included the key assurance activities of the independent SCIRT programme Estimator and the SCIRT Claims Validator.

The public entities confirmed that the audit framework gave them adequate assurance that SCIRT is well managed and delivering value for money.<sup>9</sup>

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<sup>8</sup> SCIRT was involved in these groups as required.

<sup>9</sup> Office of the Auditor General, “Effectiveness and efficiency of arrangements to repair pipes and roads in Christchurch – follow-up audit”, (Office of the Auditor General, May 2016), p. 29.

## 4.6 Transition to the Council

The HIGG Infrastructure Programme Transition Group (IPTG) developed and implemented a Transition Implementation Plan for the transition of systems and information to the Council. This is now complete, and the Council is well positioned to integrate asset information collected by SCIRT into existing systems to assist in actively managing the horizontal infrastructure networks going forward. Council through a restructure in January 2016 have allocated funding and resources to further advance their total asset management capability. This allocation will hopefully enable the Council to progress its asset management capability built on the integrated asset information. It should not however, be underestimated as to the task ahead to bring the city up to “normal” so that “Business as Usual” covers all horizontal infrastructure projects.

## 4.7 Independent Assessment of the Horizontal Infrastructure rebuild work and costs

The Cost Sharing Agreement (CSA) made provision for the Crown and the Council to undertake an Independent Assessment of the work and costs required to complete the Horizontal Infrastructure rebuild programme<sup>10</sup>.

The HIGG commissioned an independent review undertaken in April 2015, with the Independent Assessor reporting that the estimated cost of the repair work under the CSA would be \$2.899 billion<sup>11</sup> but recommended that the Crown and Council should hold discussions regarding progressing the Land Drainage Recovery Works.<sup>12</sup> The possible discussions concerning Land Drainage Recovery Works is outside the scope of the HIGG and the Cost-sharing Agreement.

This was \$348 million less than the \$3.248 million of shared cost when the CSA was negotiated in 2013. The lower costs are a result of many factors including efficiencies gained from:

- ✚ A focus on restoring network performance rather than the repair of all damage;
- ✚ Rebuild efficiencies obtained by SCIRT;
- ✚ Better assessment of asset damage information;
- ✚ The optimisation exercise and the new design guidelines;
- ✚ Lower than forecast inflation of construction costs.

## 4.8 Funding Challenges

An unforeseen issue arising from the CSA was defining how the Crown funding would be split between CERA and the NZTA. CERA funding covered water, waste water and storm water repairs (three waters) and NZTA provided funding for roading infrastructure.

The funding split between the two Crown entities was originally determined by the Crown in June 2013 - prior to completion of the damage assessment. Final assessments indicated three waters needed more repair funding and roading infrastructure less than that allocated. This made it challenging to align the three waters rebuild scope to available funding.

The introduction of the revised network performance guidelines in July 2014 required a review and redesign of some HI projects that had not commenced construction to ensure optimum delivery of the remaining programme within the CSA funding.

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<sup>10</sup> New Zealand Government, “Cost Sharing Agreement”, (New Zealand Government, June 2013 p. 4.

<sup>11</sup> New Zealand Government, “Independent assessment of horizontal rebuild work and costs”, (New Zealand Government, May 2015), p. 3.

<sup>12</sup> New Zealand Government, “Independent assessment of horizontal rebuild work and costs”, (New Zealand Government, May 2015), p. 3.

The Crown agreed to fund eligible work scope in accordance with the revised network performance guidelines with any additional scope to be fully funded by the Council as betterment. However, at this stage Council had little additional funding it could allocate to betterment.

This process had an initial impact on the rebuild process with delays in the allocation of projects for SCIRT construction. The programme benefits and value for money outweighed any impacts from real or perceived delays in the allocation of projects.

The HI funding matters were agreed and resolved in November 2015 when the Cabinet confirmed the Crown financial contribution at \$1,689m (was \$1,800m at CSA) providing the HIGG with authority to endorse all remaining SCIRT projects into construction.

This ensured the SCIRT programme could successfully achieve handover of completed assets to the Council and the formal signing of Programme Practical Completion at the SCIRT Board meeting on 14 June 2017.

## 4.9 Summary

The key programme achievements ensured that the Horizontal Infrastructure Programme was delivered on time, to budget and specification - a best for recovery outcome.

The SCIRT Alliance delivered 743 projects at a forecast programme cost of approximately \$2.2 billion, of which \$1.3 billion was funded by the Crown and \$960 million funded by the Christchurch City Council.

77% of the work is associated with the underground three-waters reticulation and more than \$1.5 billion has been spent on the wastewater network.

The combined work of the Crown and Council (in conjunction with SCIRT) has seen the Horizontal Infrastructure programme cost significantly reduce from the initial cost estimates at the time of the CSA.

## 5. Key Learnings

Key learnings from the governance arrangements are as follows:

Clearly defining and documenting the relative roles, responsibilities and accountabilities of each party;

- A formal governance structure requires partnering and collaboration from all funding partners at all committee levels, and facilitates and records significant decisions.
- Early engagement and involvement of all parties is imperative;
- Governance is shared between the funding partners - no one party is 'in charge' and the position of an independent chair is critical in reinforcing the concept of shared governance;
- Consistent funding partner representation at the governance level is key to ensuring programme momentum and the delivery of horizontal infrastructure rebuild/repair work;
- There needs to be a balance between urgent repair work undertaken for health and safety reasons immediately following an event, and the ability of the funding parties to set out a programme and agree the costs – concurrent with the emergency works, detailed programme planning needs to be undertaken. Programme planning should be the subject of regular reviews;
- The indemnity following the earthquakes remained in place too long, and consequently it was hard to control costs and expectations;
- Standards and priorities need to be established, formalised and agreed as soon as possible – the purpose of the Crown's involvement was to restore the horizontal infrastructure network's

performance, serviceability and functionality as soon as possible, not to rebuild and repair all damage.

- In a programme of this scale, there needs to be flexibility within the governance structure and between the funding partners to respond to changes in programme priorities, funding and standards.
- There needs to be a more formalised reporting back to all parties from the Governance Group via the Chair, as well as back through individual organisational representatives. It is important that the representatives of the funders understand the position of, and have a clear mandate from, their principals to enable decisions to be made and early alerts from the Chair when appropriate.
- In early 2016, the HIGG endorsed a change to the governance structure to support transition of the programme from SCIRT to CCC. This was critical to ensure the timely transition of systems and processes to CCC, to ensure the CCC is in a stronger position with respect to network information, asset management and to protect the funders' investment in the programme to ensure prudent management going forward.
- The governance structure worked well ensuring all horizontal infrastructure projects were rigorously reviewed with the technical expertise of the IPCT and IPSG, and approved into the programme by the HIGG. Project agreement through this process avoided the need for decisions to be escalated to the Minister and Mayor.
- A successful transition from SCIRT to CCC should ensure the Crown and Councils investment in the rebuild will be protected and the CCC set up for ongoing success.
- Communication needs to be carefully managed throughout the process as early public announcements lead to the general public's expectations and understanding to far exceed the scope that would be delivered within the programme, creating an ongoing communication challenge particularly in the last section of the programmes delivery.
- Close engagement and communication with the community and service providers ensured a successful rebuild process for horizontal infrastructure. However, in future events we need to ensure that a regular advertisement is placed in newspapers and prominent notice boards explaining where we are in the process and the rationale behind the order of work.
- Communication and engagement with SCIRT by the HIGG Governance Committees ensured robust monitoring and reporting on both the financial and non-financial performance of the SCIRT Alliance.
- For future events of this kind, better planning by funders could result in a better and complete result for the public, e.g. if while the road is being excavated for pipes and consequent road repairs, Local Authority money could be spent on fixing the footpaths etc. so that there is no need for subsequent interruptions. In hindsight, it may have been prudent for CCC to have considered fully funding this type of work taking advantage the economies of scale and integrating this additional work with the SCIRT Programme. The same applies to other utility companies, in Christchurch's case Orion and Enable and private developers. This would require greater communication on where work is planned and seeking their cooperation. The effort would be worthwhile.
- Alliance programmes of this magnitude provide opportunities to introduce new governance structures, systems, processes and standards, which are now being applied to the North Canterbury earthquake recovery and rebuild. These include the Recovery Steering Group in Kaikoura and the work scope eligibility processes currently adopted by all three North Canterbury Councils.

## 6. Recommendations

It is recommended that you note the contents of this report and the learnings in support of the establishment of a governance programme to oversee future significant events.