



COUNCIL 22. 11. 2012

**ENVIRONMENT AND INFRASTRUCTURE COMMITTEE
1 NOVEMBER 2012**

**A meeting of the Environment and Infrastructure Committee
was held in the No. 1 Committee Room, 53 Hereford Street, Christchurch
on Thursday 1 November 2012 at 9am.**

PRESENT: Aaron Keown (Deputy Chairperson)
Councillors Sally Buck, Jimmy Chen, Barry Corbett, and Sue Wells.

APOLOGIES: Councillor Claudia Reid.

The Committee reports that:

PART A - MATTERS REQUIRING A COUNCIL DECISION

(1.) INFRASTRUCTURE REBUILD MONTHLY REPORT

| | |
|-------------------------------------|---|
| General Manager responsible: | General Manager Capital Programme Group, 941-8235 |
| Officer responsible: | Infrastructure Rebuild Client Manager |
| Author: | Will Doughty |

PURPOSE OF REPORT

1. To provide the Council with a monthly update on the infrastructure rebuild.

EXECUTIVE SUMMARY

2. At its April 2011 meeting, Council gave approval for an Alliance to be formed to deliver the reinstatement of the City's damaged infrastructure. It was also agreed that the Chief Executive would report regularly to the Council on progress with regard to the reinstatement work.
3. The report (**Attachment 1**) is the twelfth of what will be a regular monthly report that is provided to the Environment and Infrastructure Committee, the Council and the Canterbury Earthquake Recovery Authority (CERA).

STAFF RECOMMENDATION

That the Council receive the Infrastructure Rebuild Monthly Report for October 2012.

COMMITTEE CONSIDERATION

Committee members asked questions relating to infrastructure matters raised in the report which staff undertook to answer.

COMMITTEE RECOMMENDATION

That the staff recommendation be adopted.

(2.) WEIGHT RESTRICTIONS ON UNDER STRENGTH AND EARTHQUAKE DAMAGED ROAD BRIDGES

| | |
|-------------------------------------|--|
| General Manager responsible: | General Manager City Environment Group, DDI 941-8608 |
| Officer responsible: | Unit Manager, Transport and Greenspace |
| Author: | Ryan Rolston, Traffic Engineer - Transport |

PURPOSE OF REPORT

1. The purpose of this report is to seek the Council's approval to adopt weight and speed restrictions on certain Council road bridges that are under strength or have been damaged by earthquakes.

EXECUTIVE SUMMARY

2. Ongoing routine inspections and additional inspections as a result of the earthquakes were undertaken to determine requirements for weight and/or speed restrictions on Council road bridges. Weight and speed restrictions have then been implemented where a need was identified to prevent further damage. Many of the present restrictions expire on 10 November 2012, noting that the Heavy Motor Vehicles Regulations 1974 only enables bridge weight and speed restrictions to be implemented for a maximum of 12 months and the present restrictions were notified on 10 November 2011.
3. Routine inspections have identified a number of additional Council bridges with no current restrictions where weight and speed restrictions are now required.
4. Appendix A (refer **Attachment 1**) lists Council bridges with existing or required weight and speed restrictions. This report recommends the approval of the specified weight and speed restrictions on these bridges for the subsequent 12 month period.
5. Public notification is required to give legal effect to the restrictions. It is proposed to publically notify the restrictions through the public notices in "The Press" newspaper. Following notification, the New Zealand Transport Agency (NZTA) will be informed of the restrictions in accordance with the requirements of the Heavy Motor Vehicles Regulations 1974.

FINANCIAL IMPLICATIONS

6. The cost of these weight and speed restrictions inclusive of engineering, newspaper advertising costs and the manufacturing and installation of signage (where necessary) is approximately \$15,000.

Do the Recommendations of this Report Align with 2009-19 LTCCP budgets?

7. Costs associated with the restrictions primarily relate to new signage and will be funded through the LTCCP budget for bridge renewals. It is noted that signs have previously been installed on bridges where the restriction is a result of earthquake damage

LEGAL CONSIDERATIONS

8. Regulation 11(3) of the New Zealand Government Heavy Motor Vehicles Regulations 1974 empowers the Council to impose weight and speed restrictions on Council road bridges.
9. Regulation 11(13) of the New Zealand Government Heavy Motor Vehicles Regulations 1974 states that any weights or speeds limit fixed on a bridge by the road controlling authority shall remain in place (unless revoked or amended sooner) for no longer than is required and for a maximum period of 12 months.

2 Cont'd

10. Regulation 11(5) and 11(7) of the New Zealand Government Heavy Motor Vehicles Regulations 1974 require public notification of bridge weight and speed restrictions through a local newspaper, deemed in this instance to be "The Press". The restrictions become effective upon public notification.
11. Regulation 11(13) of the New Zealand Government Heavy Motor Vehicles Regulations 1974 requires that Central Government is informed of restrictions being implemented via the New Zealand Transport Agency (NZTA) the details per a legal gazetting process.

Have you considered the legal implications of the issue under consideration?

12. As above.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

13. Not applicable.

Do the recommendations of this report support a level of service or project in the 2009-19 LTCCP?

14. Not applicable.

ALIGNMENT WITH STRATEGIES

15. Not applicable.

Do the recommendations align with the Council's strategies?

16. Not applicable.

CONSULTATION FULFILMENT

17. On approval, the restrictions are required to be notified within a local newspaper to have effect. It is proposed that the restrictions are notified within "The Press" on Saturday 10 November 2012 to align with the lapsing of the current restrictions.
18. Following public notification, Council staff will forward the NZTA a copy of the newspaper containing the notification, together with advice that certificates for the restrictions have been obtained from the appointed engineer.

STAFF RECOMMENDATION

That the Council adopts the weight and speed restrictions to the road bridges as specified within Appendix A of this report.

COMMITTEE RECOMMENDATION

That the staff recommendation be adopted.

It was **agreed** that the Committee record its appreciation for the work of Alan Beuzenberg, Transport and Greenspace Unit Manager, during his time at the Council.

PART B - REPORTS FOR INFORMATION

(3.) DEPUTATIONS BY APPOINTMENT

Nil.

PART C – DELEGATED DECISIONS

(4.) RESOLUTION TO EXCLUDE THE PUBLIC

At 9.30am the Committee **resolved** to exclude the public for Clause 5 on the grounds set out on page 64 of the agenda.

Note: Permission was granted for John Hannah, Ferrymead Bridge Replacement Project Manager, to be present during consideration of this item to assist the Committee in its consideration of Clause 5.

The public was readmitted at 10.40am, at which point the meeting concluded.

CONSIDERED THIS 22ND DAY OF NOVEMBER 2012

MAYOR



New Zealand Government

**INFRASTRUCTURE REBUILD PROGRESS REPORT
OCTOBER 2012**

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1. INTRODUCTION

The purpose of this report is to provide Council, CERA and NZTA an update on the horizontal infrastructure rebuild. For this month, and going forward, progress on all horizontal infrastructure rebuild work is reported. This includes the work activity being delivered by SCIRT (section 4.1) and work being delivered under business as usual (BAU) mechanisms (section 4.2).

2. ACTIVITIES FOR THE MONTH

Operationally, SCIRT is showing a further increase in work done in September. The total claim for the month for earthquake related work was approximately \$35.2m of which \$20.2m relates to physical work in the field. This is a \$3m increase in work in the field compared to August.

Visits to the Community Boards have continued over the last three weeks, with great feedback from all, around the infrastructure rebuild in general and particularly around the operational level communications from SCIRT. There was also a community meeting regarding the traffic management proposed for the Bridge Street bridge rebuild that went very well and received good feedback from elected officials that attended. SCIRT are working through the forward work schedule to identify key locations where work may create impacts on localized community groups to enable them to be even more proactive in explaining what is being done, why and the planning behind it.

There has been considerable focus in October on updating the overall horizontal infrastructure rebuild estimate from September 2011 for both the work being delivered by SCIRT and the non SCIRT works. There is a greater understanding of the scope of the rebuild required a year further on. This updated estimate will be used to inform the long term plan and also the necessary appropriations from NZTA and CERA. At this stage it is anticipated that the updated estimate will be available in November.

Work is ongoing to address wider strategic issues that could have an impact on the delivery of the SCIRT programme. Close liaison has been established with the Porthills Geotech group, CCDU and CERA. Several briefings have already been held with SCIRT around strategic transport issues for the City relating to the Christchurch Transport Plan and Greater Christchurch Transport Statement. Another key strategic issue of the rebuild is the future of the red zone.

3. FINANCIALS

Below is a summary of the financials for the horizontal infrastructure rebuild. These have been separated into rebuild activities being carried out by SCIRT (including NZTA State Highway rebuild work) and Council infrastructure rebuild activities being undertaken through Council business as usual mechanisms.

This report includes a breakdown for the current financial year to date as per the agreed SCIRT annual target budget and the Council Annual Plan in section 3.1 and actual life to date costs against the overall infrastructure rebuild estimate (plus additional projects) in section 3.2. For the purpose of this report all indirect costs have been allocated based on portion of the programme estimate per activity.

The table below summarises the year to date and life to date of the horizontal infrastructure rebuild activities performed by SCIRT, rebuild activities performed by others and other CCC renewal projects performed by SCIRT.

| FINANCE AS AT 30 SEPTEMBER 2012 | | | | | |
|--|------------------------|-----------------------|-------------------------|--------|-----------------------|
| Activity | Year to date 2012/2013 | | Life to date | | |
| | Budget | Actual | Estimate | Actual | |
| Rebuild activities performed by SCIRT | \$ 440,000,000 | \$ 99,089,252 | \$ 1,751,095,238 | | 364,624,720 |
| Rebuild activities performed by others | \$ 103,486,521 | \$ 6,150,054 | \$ 307,306,057 | | 68,590,635 |
| Other activities performed by SCIRT | \$ 47,786,904 | \$ 9,897,268 | \$ 47,786,904 | | 20,507,326 |
| GRAND TOTAL | \$ 591,273,425 | \$ 115,136,574 | \$ 2,106,188,199 | | \$ 453,722,681 |

3.1 Annual Plan 2012/13 - Actual year to date cost against budget

The Council 2012/13 Annual Plan includes a budget for the infrastructure rebuild of \$543.5m. This relates to Council rebuild activities being delivered by both SCIRT and Council business as usual mechanisms. The SCIRT budget for the year also includes NZTA Highway rebuild budget of \$10.9m.

3.1.2 SCIRT actual year to date costs

The approved annual target budget for SCIRT is \$440m. This includes NZTA State Highway rebuild activities of \$10.9m. Table 1.1 below presents the actual costs for each activity for the year to date reported against the agreed annual target budget for SCIRT. These costs are up to end September 2012.

Table 1.1 Actual costs for year to date of rebuild works by SCIRT

| FINANCE AS AT 30 SEPTEMBER 2012 | | | | | | |
|---|--------------|-----------------------------|----------------------|--------------------------------|-------------------|------------------|
| SCIRT | | | | | | |
| Activity | Description | 2012/13 SCIRT Target Budget | Actual Cost YTD | Forecast Total Spend This Year | Year End Variance | |
| Road Network | Roading | \$ 105,410,459 | \$ 28,842,591 | \$ 119,661,934 | -\$ | 14,251,475 |
| Wastewater Collection | | \$ 272,979,266 | \$ 59,956,095 | \$ 266,012,597 | \$ | 6,966,669 |
| Water Supply | Water Supply | \$ 26,872,162 | \$ 7,746,479 | \$ 26,325,687 | \$ | 546,475 |
| Waterways & Land Drainage | Stormwater | \$ 23,824,220 | \$ 1,879,862 | \$ 23,378,280 | \$ | 445,940 |
| NZTA Highways | | \$ 10,913,892 | \$ 664,225 | \$ 11,121,501 | -\$ | 207,609 |
| TOTAL SCIRT INFRASTRUCTURE REBUILD PROGRAMME | | \$ 440,000,000 | \$ 99,089,252 | \$ 446,500,000 | -\$ | 6,500,000 |

3.1.3 Non-SCIRT actual year to date costs

The balance of the annual plan budget for the infrastructure rebuild (\$103.5m) is being delivered by Council business as usual mechanisms. Table 1.2 below presents the actual costs for the year to date of the infrastructure rebuild performed by Council for each activity against the 2012/13 Annual Plan budget. These costs are up to the end of September 2012.

Table 1.2 Actual costs for year to date of non-SCIRT rebuild works

| FINANCE AS AT 30 SEPTEMBER 2012 | | | | | | |
|---|--------------------|-----------------------|---------------------|----------------------|-------------------|------------------|
| Non SCIRT | | | | | | |
| Activity | Description | Approved Budget | Actual Cost YTD | Year End Forecast | Year End Variance | |
| Road Network | Roading | \$ 31,367,190 | \$ 401,607 | \$ 8,300,043 | | 23,067,147 |
| Wastewater Collection | | -\$ 42,779,266 | -\$ 12,466 | -\$ 12,466 | - | 42,766,800 |
| Parks & Open Spaces | Greenspace | \$ 13,554,101 | \$ 304,712 | \$ 13,554,101 | - | 0 |
| Refuse Minimisation & Disposal | Solid Waste | \$ 5,105,263 | \$ 1,344,878 | \$ 5,105,263 | - | 0 |
| Wastewater Treatment & Disposal | WW Treatment Plant | \$ 29,020,147 | \$ 1,802,077 | \$ 29,020,147 | | 0 |
| Water Supply | Water Supply | \$ 62,553,010 | \$ 1,085,750 | \$ 34,425,175 | | 28,127,835 |
| Waterways & Land Drainage | Stormwater | \$ 4,666,077 | \$ 1,194,464 | \$ 7,773,464 | - | 3,107,387 |
| TOTAL NON-SCIRT INFRASTRUCTURE REBUILD PROGRAMME | | \$ 103,486,521 | \$ 6,121,022 | \$ 98,165,727 | \$ | 5,320,794 |

3.2 Overall Infrastructure Rebuild estimate - actual life to date costs against current infrastructure rebuild estimate.

The current estimate for the overall rebuild of the City's horizontal infrastructure is \$2.015 billion (including contingency and excluding escalation), plus \$18.163m project budget not included in the horizontal infrastructure cost estimate. In addition to the above there is an estimate of \$25m for NZTA State Highways rebuild. For the purpose of this monthly progress report the current overall estimate reported against is therefore \$2.058 billion.

It is anticipated that a revised programme estimate will be completed in Q4 of calendar year 2012 to help inform the long term planning process.

3.2.1 SCIRT actual life to date against estimate

Table 2.1 includes the overall life to date costs against the current estimate for the SCIRT performed rebuild of the City's infrastructure. SCIRT is performing \$1.7b of Council infrastructure rebuild, plus \$25m NZTA Highways rebuild.

Table 2.1 SCIRT Actual life to date costs against estimate

| SCIRT | | | | | | | | | |
|---------------------------|--------------|-------------------------|----------------------|-----------------------|----------------------|-----------------------|-------------------------|-------------|--------------------|
| Activity | Description | Current Estimate of | | | | Total Actual Cost | Forecast Total | | Programme Variance |
| | | Cost | Actual Cost 2010/11 | Actual Cost 2011/12 | Actual Cost 2012/13 | | Spend | | |
| Road Network | Roading | \$ 814,857,143 | \$ 11,812,105 | \$ 71,944,425 | \$ 28,842,591 | \$ 112,599,121 | \$ 814,857,143 | \$ - | |
| Wastewater Collection | | \$ 714,095,238 | \$ 10,376,296 | \$ 124,477,818 | \$ 59,956,095 | \$ 194,810,209 | \$ 714,095,238 | \$ - | |
| Water Supply | Water Supply | \$ 128,142,857 | \$ 1,857,860 | \$ 35,385,420 | \$ 7,746,479 | \$ 44,989,759 | \$ 128,142,857 | \$ - | |
| Waterways & Land Drainage | Stormwater | \$ 69,000,000 | \$ 999,542 | \$ 6,505,956 | \$ 1,879,862 | \$ 9,385,359 | \$ 69,000,000 | \$ - | |
| NZTA Highways Rebuild | | \$ 25,000,000 | | \$ 2,176,046 | \$ 664,225 | \$ 2,840,271 | \$ 25,000,000 | \$ - | |
| TOTAL | | \$ 1,751,095,238 | \$ 25,045,803 | \$ 240,489,665 | \$ 99,089,252 | \$ 364,624,720 | \$ 1,751,095,238 | \$ - | |

3.2.2 Non-SCIRT actual life to date against estimate

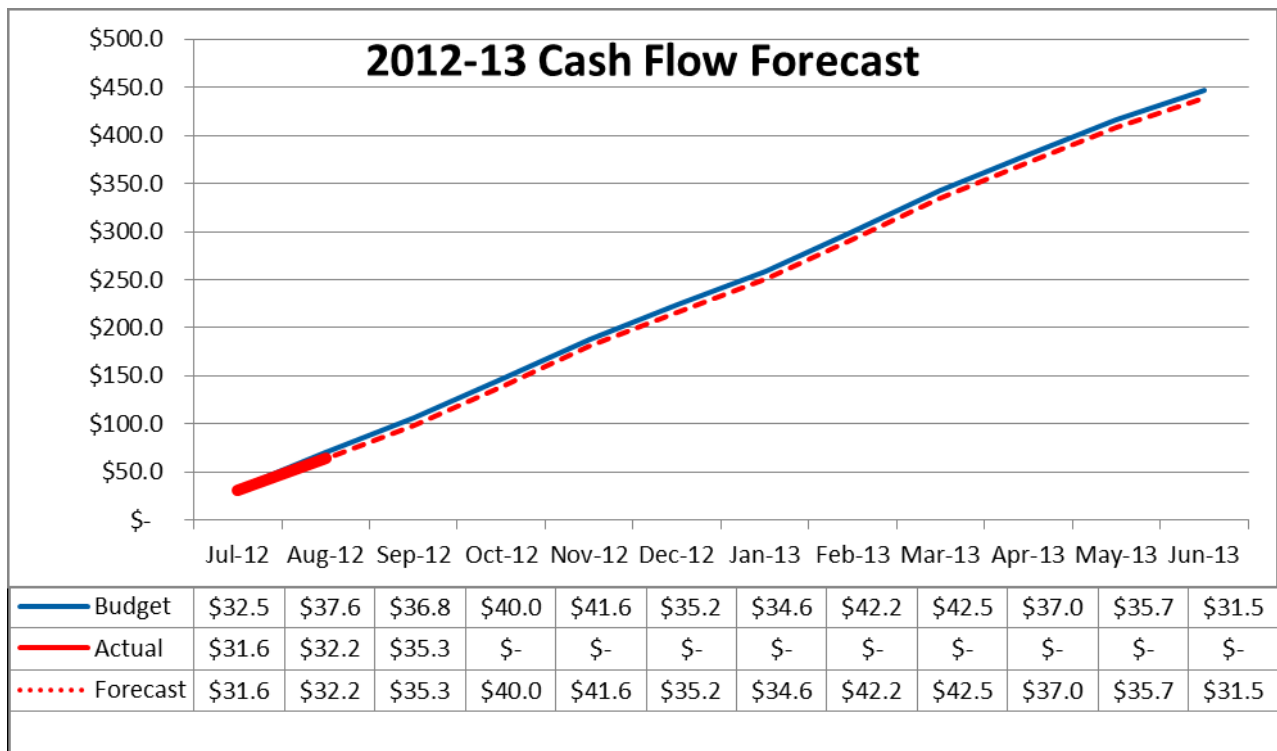
Table 2.2 includes the overall life to date costs against the current estimate for infrastructure rebuild activities being delivered by Council business as usual mechanisms. The table also includes three projects and their budgets, not included in the current cost estimate, totalling of \$18.163m.

Table 2.2 Non-SCIRT actual life to date costs against estimate

| NON-SCIRT | | | | | | | | | |
|---------------------------------|--------------------|--------------------------|----------------------|----------------------|---------------------|----------------------|-----------------------|--------------------|--|
| Activity | Description | Current Estimate of Cost | Actual Cost 2010/11 | Actual Cost 2011/12 | Actual Cost 2012/13 | Total Actual Cost | Forecast Total Spend | Programme Variance | |
| Road Network | Roading | \$ 78,589,305 | \$ 848,201 | \$ 1,792,740 | \$ 401,607 | \$ 3,042,548 | \$ 78,589,305 | \$ - | |
| Wastewater Collection | | \$ - | \$ 1,634,066 | \$ 13,757,590 | \$ 12,466 | \$ 15,379,191 | \$ - | \$ - | |
| Parks & Open Spaces | Greenspace | \$ 57,884,181 | \$ 611,310 | \$ 1,835,060 | \$ 304,712 | \$ 2,751,082 | \$ 57,884,181 | \$ - | |
| Refuse Minimisation & Disposal | Solid Waste | \$ 8,761,905 | \$ 2,076,017 | \$ 3,091,587 | \$ 1,344,878 | \$ 6,512,482 | \$ 8,761,905 | \$ - | |
| Wastewater Treatment & Disposal | WW Treatment Plant | \$ 96,356,381 | \$ 4,488,038 | \$ 13,249,043 | \$ 1,802,077 | \$ 19,539,158 | \$ 96,356,381 | \$ - | |
| Water Supply | Water Supply | \$ 24,095,238 | \$ 4,266,124 | \$ 830,545 | \$ 1,085,750 | \$ 6,182,419 | \$ 24,095,238 | \$ - | |
| Waterways & Land Drainage | Stormwater | \$ 41,619,048 | \$ - | \$ 13,960,259 | \$ 1,194,464 | \$ 15,154,723 | \$ 41,619,048 | \$ - | |
| TOTAL | | \$ 307,306,057 | \$ 13,923,757 | \$ 48,516,824 | \$ 6,121,022 | \$ 68,561,603 | \$ 307,306,057 | \$ - | |

3.3 Forecast Expenditure

The graph below shows SCIRT programme cash flow forecast and actual expenditure, year to date.



4. PROGRAMME

4.1 SCIRT Work Activity

4.1.1 Achievement Report

The progress report for this month includes an achievement report which outlines progress made by the construction projects against key metrics for each asset type.

Due to the focus on the estimating process it has not been possible to provide the complete updated achievement report for September.

| Asset Type | Asset Sub-Type | Unit | August | September | Life To Date |
|--|-------------------|----------------|--------|-----------|--------------|
| Storm Water Pump Stations | Pump Station | % | 0 | 0 | 0 |
| Storm Water Reticulation | Drainage | m | 675 | 748 | 4100 |
| Transport - Roading | Bridges | % | 0.2 | - | - |
| | Pavement | m ² | 11,809 | 20,732 | 97,218 |
| | Retaining Walls | m ² | 59 | 287 | 580 |
| Waste Water Pump Stations | Pump Station | % | 97 | 0 | 886 |
| Waste Water Reticulation | Reticulation | m | 9,811 | 15,413 | 63,652 |
| | Manhole/chamber | # | 46 | 85 | 197 |
| Water Supply Pump & Reservoir | Pump Station | % | 142 | - | - |
| | Reservoir | % | 0 | - | - |
| Water Supply Reticulation | Reticulation | m | 1,505 | 555 | 18,663 |
| | House connections | # | 3 | 22 | 159 |

4.1.2 Number of Ongoing SCIRT Projects

The following table is a summary of the programme pipeline as at September 30th 2012. It shows how many projects and the total value at each stage of the project lifecycle.

| Project Lifecycle Stage | August Estimate | September Estimate | August Estimated Construction Cost | September Estimated Construction Cost |
|---|------------------------|---------------------------|---|--|
| Investigation (Asset Assessment) | 53 | 30 | \$44.2m | \$8.9m |
| Concept Design | 76 | 101 | \$703.9m | \$622.4m |
| Detailed Design | 94 | 63 | \$429.1m | \$414.3m |
| Construction | 87 | 127 | \$207.6m | \$356m |
| Handover | 202 | 214 | \$76.0m | \$81.9m |
| Grand Total | 512 | 535 | \$1,460.8m | \$1,483.5m |

In the table above, the previous monthly report totals have also been included to show the change in activity.

4.1.3 Ongoing Projects by Ward

4.1.3.1 Introduction

The progress report this month includes a summary of all SCIRT projects that are currently either in detailed design or construction separated on a Ward basis. A separate table has been included specifically for projects either in detailed design or construction within the central city (within the four avenues). This has been created to assist in the coordination with the Central City Recovery Plan and vertical infrastructure rebuild going forward.

For projects in construction – estimated construction cost (Target Outturn Cost) has been included together with actual Life to Date Costs as at the end of September 2012.

4.1.3.2 Burwood / Pegasus

| DETAILED DESIGN | | |
|-----------------|--|--|
| Reference | Project | Project Description |
| 10415 | PS 63 (PS) | New replacement PS63 at Beach Road. This project is linked to 10926 for the approximately 4Km long 700mm pressure main. |
| 10620 | Pages Rd Bridge | Repair to Pages Rd Bridge, including road network connecting to roundabout on North end of bridge. |
| 10694 | PS36 Renewal (WW) | New PS36 to replace existing PS36. New station capacity approximately 900 L/S. This project covers all design for the project and construction for above ground activities. A related project covers 2M of below ground construction works required. |
| 10796 | NZTA Anzac Bridge Repairs | Ground improvements, removal of landward bridge spans, demolish and rebuild abutments, repair piers, approaches and underpasses |
| 10809 | PS28 Catchment RD SW and WS Repairs | Design for repair (some full reconstruction) of minor to severe earthquake damage to carriageways, kerbs and channels, and footpaths with some associated stormwater and water supply works in streets situated in the area from Woodham Rd/Pages Rd north to Wainoni Rd/Breezes Rd. This work will follow construction of wastewater repairs/replacement. |
| 10819 | Keyes Road Catchment (RD,SW) | Repair and reinstatement of roads and underground services (excluding wastewater). |
| 10840 | PS37 Catchment RD SW WS | Linked to Project 10318 WW for the RD WS and SW elements |
| 10861 | New Brighton, South New Brighton & Southshore NE1, NE2 & NE3 Area Rebuild (WW) | Overall Catchment scope to link multiple projects and release projects on hold for a full one pass rebuild of the above area. Includes WW elements. Projects for construction to the value of \$15M are expected from this concept study. |
| 10865 | Catchment Study - Burwood Rebuild NE8 (WW) | Full One Pass rebuild of the Burwood Catchment Area - WW Element, estimated value of resulting projects in the region of \$15,000,000. |
| 10900 | New Brighton NE6&NE7 Catchment Rebuild (WW) | Full, one pass rebuild of the New Brighton Catchment Area (Waste Water Element) |
| 10932 | PS36 New Pressure Main (WW) | Construction of an additional Pressure Main from PS36 to provide resilience in the system. |
| 10946 | PS25 Replacement VS5001 (WW, PS) | Replacement of the existing wet well pump station that is fed by the existing gravity sewer network with a vacuum pump station that will be fed by the new vacuum sewer network. |
| 10959 | Aranui Catchment NE4 Vacuum Pump Station, Pages Road (WW) | Construction of a vacuum pump station to service the Aranui catchment including an above ground, architecturally designed pump station building, biological filter bed, shared generator building with PS36 and an access road. This pump station is located at the same site as PS36 and has some shared facilities. |

| DETAILED DESIGN | | |
|------------------------|--|--|
| Reference | Project | Project Description |
| 10960 | Aranui Catchment NE4 Vacuum Arm 1: Rowses Road Subcatchment (WW) | Construction of vacuum sewerage pipes, pits, and laterals (in road reserve only) and connecting up to the new vacuum pump station in Bexley Reserve. |
| 10961 | Aranui Catchment NE4 Vacuum Arm 2: Pages Rd West Subcatchment (WW) | Construction of vacuum sewerage pipes, pits, and laterals (in road reserve only) and connecting up to the new vacuum pump station in Bexley Reserve. |
| 10962 | Aranui Catchment NE4 Vacuum Arm 3: Shortland Sreet Subcatchment (WW) | Construction of vacuum sewerage pipes, pits, and laterals (in road reserve only) and connecting up to the new vacuum pump station in Bexley Reserve. |
| 10963 | Aranui Catchment NE4 Vacuum Arm 4: Marlow Road Subcatchment (WW) | Construction of vacuum sewerage pipes, pits, and laterals (in road reserve only) and connecting up to the new vacuum pump station in Bexley Reserve. |
| 10964 | Aranui Catchment NE4 Vacuum Arm 5: Portchester Street Subcatchment (WW) | Construction of vacuum sewerage pipes, pits, and laterals (in road reserve only) and connecting up to the new vacuum pump station in Bexley Reserve. |
| 10965 | Aranui Catchment NE4 Pressure Sewerage System - East Avondale centred on Cowes Street (WW) | Construction of a pressure sewerage system including individual pump station units in private property, laterals, boundary kits and pressure mains. The pressure main from the catchment then runs along Anzac Drive and discharges to a new inlet manhole (by others) near the junction of Anzac Drive and Bexley Road. |
| 10975 | NE12 - North New Brighton Wastewater Catchment Repairs (WW) | Repair of the Wastewater network within the North New Brighton area. |
| 10976 | NE13 - Beach Road & Bower Ave Wastewater Catchment Repairs (WW) | Wastewater replacement in the Beach and Bower Ave Catchment within Parklands East. |
| 10977 | NE13 - Parklands East Wastewater Catchment Repairs (WW) | Replacement of the Wastewater system in the Parklands East area. |
| 10978 | NE13 - Parklands West Wastewater Catchment Repairs (WW) | Wastewater repairs to the Parklands West catchment area. |

ATTACHMENT 1 TO CLAUSE 1 ENVIRONMENT AND INFRASTRUCTURE COMMITTEE 1. 11. 2012

| CONSTRUCTION | | | | | | |
|---------------------|--|---|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10314 | Keyes Road Catchment (WW, WS) | Repair and/or reinstatement of wastewater system. | 5/03/12 | XXXX | \$5,465,563 | \$5,389,934 |
| 10318 | PS37 North Catchment (WW) | Wastewater repairs and renewal for northern half of PS37 catchment. Includes one new pump station and approximately 100 pressure sewer pumps. | 27/04/12 | 2/05/13 | \$4,361,942 | \$2,669,249 |
| 10335 | PS54 - Catchment | A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale. | 2/11/11 | 9/10/12 | \$10,893,000 | \$6,613,190 |
| 10359 | PS54 - Niven Street (WW) | Minor works on pump station 54 as described in an IRMO report form | 25/10/11 | 24/10/12 | \$22,100 | \$62,282 |
| 10363 | PS 108 Catchment (old PS39 Catchment) | A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale. | 11/11/11 | 31/10/12 | \$5,306,865 | \$4,791,460 |
| 10416 | PS37 | Repairs to existing PS37, including new pump intakes and repairs to yards. | 24/01/13 | 21/03/13 | \$247,891 | \$682,527 |
| 10429 | Estuary Rd Carriageway, PS37 to Bridge Street Catchment (WS,SW,RD) | Repairs to roads, stormwater and water in Estuary Road between Bridge Street and Beatty Street. | 28/09/12 | 28/02/13 | \$1,351,722 | \$1,790 |
| 10430 | PS28 - Catchment | PS 28 catchment services residential and industrial land loosely bounded by Pages Rd, Cuffs Rd, Wainoni Rd and Shortland St in the suburb of Wainoni. Other pockets of land are also serviced including 650 m of Wainoni Rd north of Shortland St and 240 m of Breezes Rd, an area west of Wainoni Rd including a portion of Avonside Dr, Newport St, Tenby Pl and Emlyn Pl, 350 m of Wainoni Rd south of Cuffs Rd and an area south of Pages Rd including Price Pl, 180 m of Kearneys Rd and Mecca Pl. The seismic events caused liquefaction and land settlement throughout the catchment. The pump | 23/07/12 | 11/07/14 | \$15,841,952 | \$390,292 |

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| CONSTRUCTION | | | | | | |
|---------------------|--|--|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| | | station is still operational and in a serviceable state. The majority of the network suffered either loss of grade, cracks and breakages or a combination of the two. Therefore a significant proportion, if not all, of the network will need to be replaced. | | | | |
| 10532 | Cnr Pages & Cuff - Emergency Repair | A large waste water renewal to a section of gravity pipe in Pages Rd. | 30/01/12 | 18/10/12 | \$1,794,976 | \$2,558,966 |
| 10557 | Gayhurst Road Roothing (RD) | Design for road reconstruction to repair moderate to severe earthquake damage to carriageway, kerb and channel, and footpaths from Dallington Bridge northwards to Mundys Road. This project will become part of PS108 Catchment Phase 1 Roothing, Storm Water and Water Supply. This work follows wastewater repairs/replacement. | 16/07/12 | 13/05/13 | \$2,747,247 | \$862,334 |
| 10577 | PS 106 - Woolley | Minor new pump station. | 2/07/12 | 28/11/12 | \$428,800 | \$365,388 |
| 10681 | Bower Avenue Watermain and Submains (WS) | | 27/02/12 | 12/10/12 | \$553,869 | \$470,489 |
| 10765 | PS 108 New Pump Station | Minor new pump station. | 8/10/12 | 12/04/13 | \$1,056,159 | \$15,557 |
| 10769 | CCC - Keyes Pumping Station (WS) | CCC capital works programme rebuilding project for the Keyes Water Pumping Station. Initial design was carried out by CPG, and URS are also involved with the geotechnical investigation and report. | 25/06/12 | 23/11/12 | \$2,915,195 | \$1,499,018 |
| 10786 | PS 108 Catchment Stormwater, Water Supply and Roothing Renewals (SW,WS,RD) | Design for repair (some full reconstruction) of minor to severe earthquake damage to carriageways, kerbs and channels, and footpaths with associated storm water and water supply works in 11 streets situated immediately to the east and west of Gayhurst Rd from McBratneys Rd northwards to | 3/10/12 | 9/08/13 | \$1,915,623 | \$195,272 |

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| CONSTRUCTION | | | | | | |
|---------------------|---|---|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| | | Mundys Rd. This work will follow construction of wastewater repairs/replacement. | | | | |
| 10802 | PS54 Stage 1 - Northern Roading Renewals Incl Breezes Road | Road design for 8 roads in Avondale. New pipe systems are needed in multiple roads requiring asset managers understanding and buy-in. Includes stormwater full dynamic modelling with probable need to restore capacity by optioneering new components (new basin and/or pump upgrading). | 10/09/12 | 12/06/13 | \$3,782,598 | \$168,530 |
| 10803 | PS54 Stage 1 Southern Roading Renewals (South of Breezes Road) | Road design for Pembroke St and Horton Place in Avondale. A new pipe system is needed on Horton St requiring asset managers understanding and buy-in. | 2/07/12 | 14/03/13 | \$900,394 | \$764,710 |
| 10806 | Pages & Cuffs Emergency Repair Roading (RD) | Road design for short section of dual carriageway on Pages Road. Rectification involves re-surfacing with new asphalt and minor adjustments to vertical profile and also a short stormwater pipe to connect to new low point in kerb. | 7/05/12 | 29/10/12 | \$433,037 | \$276,197 |
| 10846 | Water Main Replacement Projects - Feb 2012 | Water Main replacement projects for: Vivian St, Admirals Way, Pine Ave. Other streets have been moved to other projects: Port Hills Rd and Flavell St to 10681. Keyes Road to 10314. All others removed. | 25/05/12 | 26/11/12 | \$883,245 | \$687,277 |
| 10896 | Minor Works - Demolition of Porrit Park and Snells Footbridges, PS26 and PS27 Pump Stations | Demolition and make safe work for Porrit Park Footbridge, Snells Footbridge, PS26 and PS27. Rebuild of the bridges to be undertaken in separate standard projects. | 23/10/12 | 27/11/12 | \$223,084 | \$36,173 |
| 10898 | Minor Works - Medway Footbridge Removal | Removal and make safe of the footbridge. Store off site until a decision is made regarding the structure | 1/11/12 | 14/11/12 | \$82,348 | \$5,047 |

4.1.3.3 Fendalton / Waimairi

DETAILED DESIGN

| Reference | Project | Project Description |
|-----------|--|---|
| 10894 | Fendalton Bridge Repair Package - Minor Repairs (RD) | Repair of 6 damaged bridges within the general region of Fendalton. The six bridges included are: R131, R133, R137, R148, R153, R166. |

CONSTRUCTION

| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
|-----------|-----------------------------------|---|-----------------|------------------|----------------|--------------|
| 10425 | Glandovey/Bryndwr Cluster | Design for repair to severe earthquake damage to wastewater and minor damage to carriageways, kerbs and channels, and footpaths (severity yet to be confirmed) storm water and water supply. This cluster incorporates the 9 streets immediately adjacent to and including Glandovey Road between the Wairarapa Stream and Strowan Road | 2/11/12 | 29/08/13 | \$2,817,756 | \$84,110 |
| 10485 | Merivale WW | Approximately 9km of WW gravity system, one new pump station. | 14/05/12 | 26/04/13 | \$14,263,822 | \$4,100,402 |
| 10575 | Papanui Rd - Knowles to Mays (WW) | The area has been broken into wastewater sub-catchments in order to determine the best catchment wide solution. 10575 therefore includes Browns Rd north of Mansfield Ave, McDougal Ave east of Murray Pl, Murray Pl, Innes Rd between Papanui Rd and Browns Rd, Heaton St east of Circuit St, Papanui Rd between Innes Rd and Mays Rd, approximately 230 m of the eastern end of Knowles St, Weston Rd and Chapter St, Approximately 280 m of the western end of Normans Rd and 150 m of the eastern end of Mays Rd. | 17/05/12 | 24/06/13 | \$4,795,898 | \$2,130,922 |

| CONSTRUCTION | | | | | | |
|--------------|---|--|-----------------|------------------|----------------|--------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10595 | Wairakei Road (WW) | Replacement of the deep 225 mm sewer main and the construction of new 150 mm sewer rider mains over the deep main. The wastewater works are from Aorangi Street to Idris Road. | 2/08/12 | 27/02/13 | \$1,004,982 | \$61,512 |
| 10852 | Minor Works - Casebrook Block | Minor footpath and pavement repairs | 31/05/12 | 14/12/12 | \$226,107 | \$61,047 |
| 10857 | Minor Works - Bridge Minor Works Project Package 02 | Minor repair works to 55 bridges that suffered low levels of damage during the EQ events. Delivery team led with input from SCIRT Design teams where required. | 1/08/12 | 12/10/12 | \$29,231 | \$121,128 |

4.1.3.4 Central City

| DETAILED DESIGN | | |
|-----------------|---|--|
| Reference | Project | Project Description |
| 10464 | F106 Antigua Street Footbridge | Replacement of existing structure, or incorporate historical elements into major repair works |
| 10465 | F105 Bridge of Remembrance | Major structural repair works |
| 10467 | R114 Colombo St (North) Bridge | Major structural repair works Northern Colombo St, over the Avon, heritage bridge near intersection of Oxford Tce & Colombo St. |
| 10468 | R115 Armagh St Bridge | Major structural repair works |
| 10482 | Triumphal Arch | All works related to both temporary bracing to arch to support the structure and all permanent repair works. In CBD, Heritage structure. |
| 10844 | Central City Pump Station PS2 Catchment (WW) | Repair/replacement of wastewater system in the north west of the CBD. Excludes WW Brick barrel which is considered under Project 10845. |
| 10919 | CCC - Wairakei Diversion (WW) | CCC Capital Works project to be delivered by SCIRT for the Wairakei Diversion Project |
| 10986 | Central City Kilmore Street Catchment Area (WW) | Repair/replacement of wastewater system in the north west of the CBD. Excludes WW Brick barrel which is considered under Project 10845. |

| CONSTRUCTION | | | | | | |
|--------------|--|---|-----------------|------------------|----------------|--------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10401 | Moorhouse Brick Barrel 01 (SW) | Repair of a failed stormwater Brick Barrel pipe on Moorehouse Ave under the Colombo St over bridge | 5/11/12 | 16/01/13 | \$486,192 | \$340 |
| 10445 | Fitzgerald Ave Wall and Roding | The works include the replacement of a failed retaining wall and carriageway. Ground stabilization is also being installed with stone columns 12 meters deep. | 15/06/11 | 30/01/13 | \$3,130,000 | \$4,241,813 |
| 10506 | Hagley Syphon | Open trenching through Avon and sewer works in North Hagley Park. | 23/04/12 | 12/10/12 | \$450,006 | \$576,263 |
| 10867 | Fitzgerald Ave Retaining Wall Footpath | Footpath element of the Retaining Wall project. Linked to Project #10445 | 10/05/12 | 12/10/12 | \$604,414 | \$671,967 |

| CONSTRUCTION | | | | | | |
|--------------|--|---|-----------------|------------------|----------------|--------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10893 | Minor Works-Bridge Minor Works Project Package 01 Bridging | Minor repairs to bridges requiring little design input. Project to be led by SCIRT Project Manager and Delivery teams | 23/07/12 | 13/12/12 | \$221,172 | \$79,053 |

4.1.3.5 Hagley / Ferrymead (*excludes central city)

| DETAILED DESIGN | | |
|-----------------|--|---|
| Reference | Project | Project Description |
| 10347 | Gayhurst Rd Bridge Works EW (RD) | Retrofit repair to bridge involving new abutments, piles, wingwalls and associated road approaches and services. |
| 10405 | Stadium Package 01 (WS SW WS RD) | Repair of road and all buried services along a section of Ferry Rd and Moorehouse Ave, near the AMI stadium |
| 10449 | St Johns (WW) | |
| 10462 | Site 228 Rangatira Tce Retaining Wall (RW) | |
| 10795 | PS57 McCormacks Bay Rd Pump Station Repairs (PS) | Repairs to building at existing pump station. |
| 10823 | St John's Catchment (SW,WS,RD) | Catchment study for a full one pass rebuild of remaining services within the catchment area. Refer to Project 10449 for WW assets in this area. |
| 10824 | Beachville Catchment Area including Beachville Road & Celia Street (WW,WS,SW,RD) | Full one pass rebuild of the catchment area. Project Includes PS30, WW, SW, RD and Sea Wall assets. Projects already existing in this area which this catchment study will relate to are: 10600 - PS30, 10619 - Beachville Road Eastern Seawall, 10677 - Beachville Watermain WS. |
| 10832 | PS15 - Alport Place Pump Station Replacement (PS) | Construct a new Pump Station; tie in works, odour control system and demolition of existing PS15. |
| 10850 | Cannon Hill Cres Retaining Walls (RW) | Renewal of 2 collapsed retaining walls on Cannon Hill Road |
| 10860 | PS18 Rebuild SE11 North (WW) | Full area rebuild of the northern area of the PS18 catchment - WW element. Expected projects in the region of \$10M should result. |
| 10868 | PS 18 Rebuild SE11 North (WS,SW,RD) | Full area rebuild of the northern area of the PS18 catchment - RD,SW & WS elements. Linked to 10860. Construction project in the region of \$10M expected from this concept report. |
| 10908 | CCC - The Causeway, Main Road Sumner, Culvert Replacement (SW) | Renewal of the culvert structure linked to the Causeway project #10634. CCC BAU Project. |
| 10927 | Retaining Wall - 1 to 3 Maffey's Road (RW) | Repair of the retaining wall at 1-3 Maffey's Road. Linked to 10307 |
| 10931 | Retaining Wall - Site 182 & 183 - | Repair of the retaining wall |

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| DETAILED DESIGN | | |
|------------------------|--|---|
| Reference | Project | Project Description |
| | Glenstrae Road (RW) | |
| 10995 | Avonside Linwood Stage 1 (WW,SW,WS,RD) | One pass approach renewing wastewater, roading and stormwater assets within stage one of the Avonside Linwood Catchment. Standard project resulting from Catchment Studies 10875 and 10876. |
| 10996 | Avonside Linwood Stage 2 (WW,SW,RD) | One pass approach renewing wastewater, roading and stormwater assets within stage two of the Avonside Linwood Catchment. Standard project resulting from Catchment Studies 10875 and 10876. |
| 10997 | Avonside Linwood Stage 3 (WW,WS,SW,RD) | One pass approach renewing wastewater, roading and stormwater assets within stage three of the Avonside Linwood Catchment. Standard project resulting from Catchment Studies 10875 and 10876. |

| CONSTRUCTION | | | | | | |
|---------------------|---|---|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10303 | Site 229 Mt Pleasant Rd Retaining Wall (RW) | 60m replacement retaining wall and road reinstatement, in Mt Pleasant | 4/02/13 | 28/05/13 | \$458,381 | \$3,629 |
| 10306 | CCC - PM11 Randolph (WW) | 3.6km, 1.2m dia WW pressure main | 5/03/12 | XXXX | \$13,086,718 | \$8,635,704 |
| 10307 | 173 Maffey's Road Retaining Wall (RW) | Repair of retaining wall in Maffey's Rd, along with associated buried services | 8/10/12 | 10/12/12 | \$1,505,281 | \$219,025 |
| 10317 | Heberden Ave Permanent Solution (WW) | New gravity sewer diversion to replace broken sewer down Scarborough Cliffs. | 9/11/12 | 18/12/12 | \$256,733 | \$388,083 |
| 10356 | Woodham Rd (PS5 east of river) | The project scope requires replacement of 960m of damaged waste water from Linwood Ave to Ngarimu St. Road refurbishment will follow sewer works. Traffic diversions are required for this work to be completed safely. | 14/11/11 | 12/10/12 | \$3,095,185 | \$2,633,346 |
| 10388 | Richardson | The extent of this work for this work package is the | 1/11/12 | 7/01/13 | \$473,489 | \$1,703 |

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| CONSTRUCTION | | | | | | |
|---------------------|--|--|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| | Clarendon Syphon | replacement of the 144 Richardson Terrace / 121 | | | | |
| 10403 | Barbour St Water (WS) | Replacement of water mains in two streets to the south and east of AMI Stadium, Waltham. | 19/10/12 | 21/12/12 | \$174,742 | \$1,554 |
| 10428 | RW Mt Pleasant Rd Wall 156 (RW) | Design a replacement retaining wall to support a section of Mt Pleasant Road. The existing wall is constructed from gabion baskets and is not of heritage value | 9/07/12 | 27/09/12 | \$117,280 | \$126,212 |
| 10459 | Lower Richmond-Stanmore to Fitzgerald (WW) | Approximately 5km of WW, gravity system; requiring 2 new pump stations | 20/03/12 | 23/04/13 | \$11,833,107 | \$6,267,761 |
| 10472 | Charleston | Approx 2.9km WW enhanced gravity system, 1 new pump station; 0.3km SW; 8600m2 carriageway reconstruction, and 1830m2 localised repairs | 7/05/12 | 1/02/13 | \$3,737,683 | \$2,222,662 |
| 10483 | Lower Richmond (Southern Section) WS,SW,RD | Full reconstruction of intersection (80m), and localised repairs on remaining streets; 86m of SW replacement | 4/10/12 | 21/12/12 | \$316,261 | \$6,719 |
| 10541 | PS 11 - Randolf | | 11/06/12 | 12/03/13 | \$475,000 | \$663,458 |
| 10548 | Gloucester Street | Design for Wastewater, Stormwater, Water & Rooding along Gloucester Street between Woodham Road and Avonside Drive. Close to complete replacement of all WW and Rooding assets. Stormwater is reasonably intact. | 26/06/12 | 9/11/12 | \$1,078,084 | \$981,947 |
| 10578 | PS 107 | Minor new pump station. | 29/10/12 | 4/03/13 | \$563,749 | \$27,536 |
| 10579 | PS5 - Catchment (West of river) | Pump Station 5 catchment originally serviced an area either side of the Avon River at the northern end of Linwood Avenue and south eastern edge of lower Richmond. Pump Station 5 was badly affected | 10/10/12 | 5/08/13 | \$2,422,349 | \$14,405 |

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| CONSTRUCTION | | | | | | |
|---------------------|---|--|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| | | in the series of earthquakes. A proposal to split the PS5 catchment either side of the river to enable removal of pump station from close proximity of the river has received informal agreement among CCC Asset and technical representatives. This project relates to the reinstatement of sewer services to the portion of the original PS5 catchment to the west of the Avon River. Reinstatement options will consider the range of options allowed under the technical standards and will likely require a new pump station or siphon crossing beneath the Avon river. | | | | |
| 10582 | PS8 - Catchment | Design for repair to severe earthquake damage to wastewater within Pump Station 8 catchment green zone. The green zone is located to the north-west of the Avon River and generally bounded by Flesher Ave to the east and south, Chrystal St to the west and Medway St to the north. | 5/11/12 | 6/06/13 | \$2,974,474 | \$6,226 |
| 10634 | Main Road (Mt Pleasant - Beachville) Sumner Causeway (RD) | Repairs to main road causeway including replacement of estuary seawall and minor cross culverts and carriageway repairs. | 16/10/13 | 31/03/14 | \$1,189,804 | \$ - |
| 10680 | Clifton No. 4 Reservoir | Repair and retrofit of reservoir. | 21/03/12 | 11/12/12 | \$437,673 | \$288,162 |
| 10770 | Linwood Ave / Humphrys Dr Retaining Wall Emergency Permanent Repairs (RW) | 8m replacement and 8m extension of retaining wall at the City outfall drain to the estuary | 14/08/12 | 30/10/12 | \$397,365 | \$239,328 |
| 10820 | McCormacks Bay Reservoir Stages 3,4 and 5 | Tank 1 and 2 and access reinstatement. | 1/06/12 | 23/09/13 | \$1,106,431 | \$488,179 |

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| CONSTRUCTION | | | | | | |
|---------------------|---|---|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10822 | McCormacks Bay Reservoir Stage 2 Walls | Retaining walls and rockfall protection works at reservoir site. | 30/01/12 | 20/03/13 | \$1,549,159 | \$1,051,412 |
| 10841 | Charleston Catchment Area (RD,SW,WS) | Linked to Project 10472 WW for the RD SW and WS elements. | 24/10/12 | 20/06/13 | \$1,399,044 | \$2,385 |
| 10843 | Lower Richmond Catchment RD SW WS | Linked to #10459 for the RD SW and WS elements of the project | 26/10/12 | 24/06/13 | \$1,573,629 | \$9,870 |
| 10853 | McCormacks Bay Reservoirs - Rock Face Protection Work | Rock protection work to facilitate the repairs to the reservoir tanks | 7/05/12 | 12/10/12 | \$1,231,910 | \$955,005 |
| 10863 | Charleston Waste Water Pump Station | Pumps Station Construction | 7/01/13 | 1/05/13 | \$503,092 | \$12,065 |
| 10864 | Woodham Road (SW,RD,WS) | Storm water and water supply elements linked to project 10356 WW & RD | 29/03/12 | 12/10/12 | \$441,840 | \$480,545 |

4.1.3.6 Lyttelton / Mt Herbert

DETAILED DESIGN

| Reference | Project | Project Description |
|-----------|---------|---|
| | | There are no projects in detailed design at this time |

CONSTRUCTION

| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
|-----------|--|---|-----------------|------------------|----------------|--------------|
| 10394 | RW Package 05 - Canterbury Stone Walls (RW) | Project to design three replacement retaining walls on Canterbury Street and one wall on Ripon Street, Lyttelton. The walls are up to 4.5m high and are of high heritage value. | 21/05/12 | 16/11/12 | \$1,482,372 | \$852,223 |
| 10400 | RW Package 08 - Lyttelton on-stone (RW) | Design five replacement retaining walls on London Street, Canterbury Street, Hawkhurst Road and Ticehurst Road. Sections of these walls are of high heritage value. The walls on London Street and Canterbury Street are located within the white zone. | 12/06/12 | 29/11/12 | \$589,801 | \$562,709 |
| 10424 | Sumner Rd Retaining Wall L (RW) | Stage one of new 450m long modular block retaining wall. | 25/11/11 | 11/02/13 | \$1,658,595 | \$909,343 |
| 10427 | 035 Cunningham Tce Retaining Wall (RW) | Repair of retaining wall in Cunningham Tce, along with associated buried services | 4/05/12 | 28/03/13 | \$1,785,393 | \$437,830 |
| 10475 | Site 079 Coleridge/Dublin St Ret. Walls | 200m replacement retaining wall and road reinstatement in Lyttelton | 1/02/13 | 13/11/13 | \$1,607,135 | \$34,456 |
| 10905 | Sumner Rd Retaining Wall L - Stage 2 Wall and Stage 1 and 2 Roads (RW, RD) | Stage two of new 450m long modular block retaining wall | 25/10/12 | 4/06/13 | \$2,054,487 | \$39,541 |

4.1.3.7 Riccarton / Wigram

| DETAILED DESIGN | | |
|-----------------|-----------------------------------|---|
| Reference | Project | Project Description |
| 10831 | CCC - PS60 (PS) | Upgrade of pump station 60 and pressure main 60 to ensure increased flows can be managed in the short term. |
| 10920 | CCC - PS105 Pump Station (WW, PS) | Construction of PS105, a CCC Capital Works Project. Linked to Project #10793 for critical path construction scheduling. |

| CONSTRUCTION | | | | | | |
|--------------|---|---|-----------------|------------------|----------------|--------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10383 | PS73 Kennedys Bush | Repair of wastewater PS 73 | 18/05/12 | 18/10/12 | \$86,242 | \$95,909 |
| 10409 | Halswell WW Package 03 | Repair wastewater along a section of Halswell Rd, O'Halloran Dr, & within private properties behind Muir Ave. | 9/07/12 | 7/01/13 | \$1,516,362 | \$1,151,244 |
| 10768 | CCC - Wilmers Road Water Pumping Station (WS, PS) | New water source and pumping station to cater for projected growth in the western area of Christchurch. | 30/04/12 | 25/03/13 | \$4,524,196 | \$1,116,938 |
| 10909 | Minor Works - Port Hills Package 01 | Minor road repairs within the Port Hills | 3/07/12 | 16/11/12 | \$178,770 | \$104,099 |
| 10912 | Sparks Road Pavement Repairs | Minor roading repairs to Sparks Road | 13/09/12 | 30/10/12 | \$115,749 | \$20 |

4.1.3.8 Shirley / Papanui

| DETAILED DESIGN | | |
|-----------------|---|--|
| Reference | Project | Project Description |
| 10858 | Minor Works - Pump Station Demolition and Repairs (WW) | Minor repair works to slightly damaged Pump Stations that require no major works during the rebuild programme. Demolition of 3 PS buildings to make safe in Red Zones. Project led by the delivery team with a SCIRT Design input and coordination. Close liaison with CCC Operations team (Graeme Black) required throughout the project. |
| 10883 | Emergency Repair - Northern Relief Sewer Hills & Dudley | Emergency repair to the Northern Relief Sewer |
| 10935 | Colombo Street Wastewater Upgrade and Repair (WW) | The existing 375mm wastewater line along Colombo Street is damaged, and requires replacement. It is proposed that the 375mm wastewater line will be replaced with a 600mm main to also provide the ability to divert flow from the Northern Relief for maintenance, reconstruction and maintenance of service during interruption of service |
| 10944 | Edgware Road (WS, SW, RD) | Road and Storm water repair following WW project 10536 |
| 10974 | PS121 and Rising Main - Guild Street (PS7 Phase 4 Catchment PS) | New pump station (PS121) and rising main to service the newly formed PS121 catchment formerly part of PS7 catchment. Linked to project 10816. |

| CONSTRUCTION | | | | | | |
|--------------|-------------------------------------|---|-----------------|------------------|----------------|--------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10344 | Edgware Road - Emergency Works | A large complex repair to a sewer trunk main in Edgware Rd. | 22/09/11 | 12/10/12 | \$1,734,794 | \$2,250,541 |
| 10457 | Purchas & Madras (Bealey - Edgware) | WW, SW and roading repairs. Includes traffic calming on Purchas St to conform to IDS and City Plan requirements for Local Road widths. | 8/11/11 | 30/01/13 | \$2,962,824 | \$4,132,815 |
| 10534 | Innes & Knowles - subcatchment | The local wastewater reticulation on Innes Rd and Knowles St between Philpotts Rd and Bretts Rd suffered earthquake induced damage during the recent seismic events. Some liquefaction and land settlement was recorded in the area. Investigations | 10/08/12 | 17/07/13 | \$9,215,965 | \$484,205 |

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| CONSTRUCTION | | | | | | |
|---------------------|--|---|------------------------|-------------------------|-----------------------|---------------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| | | continue however much of the network is made up of Earthenware pipe laid during the 1920?s and 1930?s. This material has not performed well in other areas therefore it is anticipated some form of repair or replacement will be required for the majority of the network. | | | | |
| 10535 | Rutland Rd - subcatchment | Wastewater repair along a single street east of Papanui. This project area is lightly to be revised. | 20/04/12 | 16/11/12 | \$1,556,699 | \$1,262,565 |
| 10810 | PS7 Catchment Phase 1 Waste Water Renewal | Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley centred upon Stapleton's Road and Shirley Road which bisect the catchment. (Area 1 of 4, south of catchment) | 28/05/12 | 5/04/13 | \$4,631,305 | \$1,741,822 |
| 10812 | PS7 Catchment Phase 2 Waste Water Renewal | Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley centred upon Stapletons Road and Shirley Road which bisect the catchment. (Area 2 of 4, eastern quarter of catchment) | 30/05/12 | 5/09/13 | \$5,460,231 | \$1,795,201 |
| 10814 | PS7 Catchment Phase 3 Waste Water Renewal | Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley centred upon Stapletons Road and Shirley Road which bisect the catchment. (Area 3 of 4, north western quarter of catchment) | 23/07/12 | 31/05/13 | \$6,154,487 | \$688,503 |
| 10856 | Minor Works - Northwood Block | Footpath and pavement repairs. | 31/05/12 | 12/10/12 | \$176,033 | \$79,126 |
| 10899 | Minor Works - Lower Styx Road & Turners Road | Pavement repairs | 8/10/12 | 8/01/13 | \$150,763 | \$522 |
| 10930 | PS7 Phase 3 Pump Station Shirley Road (PS) | New wastewater Pump Station in the PS7 catchment which is situated in Shirley centred upon Stapletons Road and Shirley Road which bisect the catchment (area 3 of 4, north western quarter of catchment). | 31/07/12 | 17/01/13 | \$985,228 | \$18,723 |

4.1.3.9 Spreydon / Heathcote

| DETAILED DESIGN | | |
|-----------------|---|--|
| Reference | Project | Project Description |
| 10871 | Opawa, Hillsborough Catchment SE11 (South) (WW) | Full one pass rebuild of the catchment area - WW element |
| 10872 | Opawa, Hillsborough Catchment SE11 (South) (RD,WS,SW) | Full one pass rebuild of the catchment area - RD,WS & SW elements |
| 10879 | Durham Street Overbridge Repairs | Repairs to the Overbridge |
| 10888 | Hillmorton & Hoonhay S-7 (WW) | Full one pass rebuild of this catchment area - Waste Water Element |

| CONSTRUCTION | | | | | | |
|--------------|---|--|-----------------|------------------|----------------|--------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| 10785 | Holliss Ave / Glamis Place - All Services (WW,WS,SW,RD) | Repair of water & roading along a section of Holliss Ave (between Gunns & Centaurus) and all services within Glamis Pl. | 8/10/12 | 10/12/12 | \$287,051 | \$3,230 |
| 10311 | Antigua St / Burke St Arterial Roads (WW,WS,SW,RD) | Repair of road and all buried services along Antigua St (between Moorehouse & Brougham) and Burke St (between Selwyn & Montreal) | 18/04/12 | 11/06/13 | \$3,151,988 | \$1,259,888 |
| 10379 | Fisher Ave & Eastern Tce Syphon (WW) | Repair of Syphon near Fisher Ave | 4/05/12 | 31/01/13 | \$455,870 | \$598,691 |
| 10385 | Bewdley Evesham and Dellow | Repair of road and all buried services along Bewdley St, Eversham Cres & Dellow Pl. | 20/04/12 | 30/11/12 | \$1,552,670 | \$1,578,195 |
| 10398 | Somerfield Package 01 (WW,SW,RD,WS) | Repair and reconstruction of all assets within a small catchment block. | 5/11/12 | 23/08/13 | \$4,130,181 | \$468 |
| 10407 | St Martins Package 02 (WW,WS,SW,RD) | Repair of road and all buried services within the St Martins loop, north of Centraurus Rd. | 20/08/12 | 16/12/13 | \$8,385,354 | \$429,568 |
| 10520 | Hoon Hay Package 01 | Repair of road and all buried services along a section of Hoon Hay Rd (between Halswell & | 23/07/12 | 16/04/13 | \$6,767,934 | \$802,872 |

| CONSTRUCTION | | | | | | |
|--------------|--|--|-----------------|------------------|----------------|--------------|
| Reference | Project | Project Description | Estimated Start | Estimated Finish | Estimated Cost | Life To Date |
| | | Sparks), including Penny In, Weir PI, McBeath Ave, Muirson Ave & Greenpark St. | | | | |
| 10797 | NZTA Heathcote/Opawa Bridge Repairs | Ground improvements, and underpinning and lifting (jacking) of the abutments | 5/12/12 | 10/09/13 | \$2,291,590 | \$ - |
| 10821 | Huntsbury Reservoir Tank No 2 & demolition | New reservoir tank (no.2) constructed in NE corner of old reservoir. | 2/02/12 | 21/12/12 | \$3,458,765 | \$3,512,117 |
| 10829 | CCC - Victoria Reservoir Replacement (WS) | Victoria reservoir is being replaced by SCIRT and funded by CCC. | 13/08/12 | 22/03/13 | \$968,841 | \$267,456 |

4.1.4 Projects Complete by Ward

The following section outlines the projects within each ward that have been completed since SCIRT was established on 1st September 2011. It includes both a summary of numbers of projects as well as a list of specific projects. It is anticipated that the completed projects for the last quarter will be reported on a monthly basis.

| Ward | August Number of Projects | September Number of Projects | August Projects Life To Date Cost | September Projects Life To Date Cost |
|----------------------|---------------------------|------------------------------|-----------------------------------|--------------------------------------|
| Burwood-Pegasus | 82 | 86 | \$23,293,817 | \$26,179,745 |
| Fendalton-Waimari | 3 | 3 | \$210,717 | \$210,717 |
| Central City | 6 | 7 | \$368,266 | \$405,759 |
| Hagley-Ferrymead | 65 | 69 | \$19,356,956 | \$21,282,217 |
| Lyttelton-Mt Herbert | 5 | 5 | \$462,580 | \$464,597 |
| Riccarton-Wigram | 6 | 6 | \$4,808,736 | \$4,828,646 |
| Shirley-Papanui | 21 | 21 | \$6,613,553 | \$6,851,674 |
| Spreydon-Heathcote | 16 | 18 | \$6,325,170 | \$7,455,922 |
| Total | 204 | 215 | \$61,439,795 | \$67,679,277 |

In the table above, the previous monthly report totals have also been included to show the change in activity.

4.1.4.1 List of Projects Complete by Ward

| Ward | Reference | Project | Project Life to Date Cost |
|-----------------|---------------------------------|--|---------------------------|
| Burwood-Pegasus | 10312 | Rowes/Tomrich Street Watermain | \$264,247 |
| | 10321 | PM 51 Emergency Repair | \$1,510 |
| | 10325 | Cresswell Avenue - Watermains | \$148,731 |
| | 10327 | Pembroke Street | \$146,277 |
| | 10328 | De Ville Place | \$107,535 |
| | 10331 | PM 39 - Gayhurst Road | \$1,594,111 |
| | 10332 | PM54 - Niven-Avonside | \$375,476 |
| | 10338 | Wainoni Road (WW EW - Ottawa to Avonside) | \$908,330 |
| | 10339 | Woodham Road (Temp Repairs) | \$4,146,744 |
| | 10340 | Ottawa Road Sewer Emergency Repair | \$517,444 |
| | 10342 | Avondale Road (Bridge Emergency Works) | \$0 |
| | 10343 | PM16 - Oakmont Green | \$4,287 |
| | 10346 | Fleete Street - Emergency Repair | \$9,243 |
| | 10349 | PS39 - Birchfield Avenue WW EW | \$218,674 |
| | 10351 | Ardrossan Street - Temp. Solution | \$347,571 |
| | 10355 | Landy Street | \$18,738 |
| | 10364 | Shortland Street | \$343,883 |
| | 10366 | McBratneys Road - WM | \$348 |
| | 10376 | PM 28 | \$1,499,119 |
| | 10384 | Pacific_Tedder Watermain Replacement | \$528,152 |
| | 10421 | Estuary Rd Carriageway, PS37 to Bridge Street Catchment (WW) | \$2,411,794 |
| | 10440 | PS 25C | \$702,670 |
| | 10443 | PM 38 Beach Rd | \$596,770 |
| | 10484 | Pump Station 25 connection repair | \$8,977 |
| | 10551 | Avondale Rd (Temp Repair) | \$0 |
| | 10576 | PM 106 - Woolley | \$1,466 |
| | 10604 | PM 45 | \$324,122 |
| | 10605 | Sylvia Street watermain (WS) | \$134,293 |
| | 10606 | Chadlington Street Water Mains | \$35,376 |
| | 10607 | PM 37 (WW) | \$1,908,679 |
| 10608 | PM 35 | \$1,087,648 | |
| 10614 | Aldershot Street watermain (WS) | \$255,436 | |

| Ward | Reference | Project | Project Life to Date Cost |
|------|-----------|---|---------------------------|
| | 10615 | Willryan Avenue Watermain | \$237,336 |
| | 10616 | Flemington and Ascot Ave Watermains | \$525,630 |
| | 10617 | PM 46 | \$5,913 |
| | 10621 | Chartwell Street Water Mains | \$384,531 |
| | 10638 | 630 Pages Road 450mm (WW) | \$25,397 |
| | 10639 | 23 Leaver Tce WW | \$62,858 |
| | 10641 | Kirner St WW | \$21,497 |
| | 10645 | Inwoods Close 450mm WW | \$128,404 |
| | 10647 | Travis Rd watermains and submains | \$215,845 |
| | 10649 | Corhampton Street watermains and submains | \$261,190 |
| | 10650 | Water Main on Bridge Street Bridge (WS) | \$207,907 |
| | 10651 | Keyes Road Watermain (WS) | \$195,045 |
| | 10664 | Saltaire (Bower to Marriots Rd) (WS) | \$69,096 |
| | 10665 | Sinclair (Keyes to Rawson) - WS | \$250,841 |
| | 10669 | Palmers Road PS Stabilisation | \$16,065 |
| | 10670 | Major flooding Pratt St. | \$295,425 |
| | 10671 | Owles Tce Temp. (WW) | \$113,618 |
| | 10676 | Marine Parade Watermain | \$153,358 |
| | 10682 | Briarmont Street watermain | \$87,815 |
| | 10683 | Cowes St Watermain and Submains (WS) | \$107,789 |
| | 10684 | Gresham Terrace Watermain and Submains (WS) | \$161,116 |
| | 10685 | Inverell Pl Watermain and Submains (WS) | \$63,517 |
| | 10686 | Orrick St Watermain and Submains (WS) | \$83,284 |
| | 10688 | Blake St Watermain (WS) | \$343,340 |
| | 10689 | Pegasus Ave Watermain | \$168,650 |
| | 10690 | Bassett St Watermain (WS) | \$225,196 |
| | 10691 | Falcon St Watermain | \$180,732 |
| | 10692 | Beach Rd Watermain | \$138,143 |
| | 10695 | Allstone Watermain | \$90,800 |
| | 10696 | Marriotts Road Watermain | \$36,116 |
| | 10700 | Hulverstone Drive Emergency Repair | \$22,188 |
| | 10702 | Rawhiti Water Well Stormwater Outfall | \$147,524 |
| | 10706 | Bowhill Watermain (WS) | \$149,728 |
| | 10708 | Rookwood Ave Watermain | \$174,380 |
| | 10711 | Waitaki St Temp. Sewer | \$0 |

| Ward | Reference | Project | Project Life to Date Cost |
|--------------------------|-----------|--|---------------------------|
| | 10714 | Kate Sheppard Emergency Repair (Barkers Lane Temp Works) (WW) | \$187,534 |
| | 10723 | Merrington Cres Watermain | \$183,621 |
| | 10728 | Rowan Ave Emergency Work WW | \$447,340 |
| | 10744 | PS 36 Gravity Main (Pages Rd) | \$579 |
| | 10749 | Beach Rd Gravity Sewer (WW) | \$67,291 |
| | 10752 | Desal plant long term storage (WS) | \$79,908 |
| | 10756 | PM39 Temp Overland Pipe (PM) | \$7,828 |
| | 10760 | Pages Road | \$44,999 |
| | 10789 | Woodham Road Water Supply Pumping Line Renewal | \$83,862 |
| | 10794 | Pratt Street (Keyes Road) Water Main from Pumping Station | \$217,767 |
| | 10833 | Fast Track - PS36 Sewerage Overflow Repairs Pages/Waitaki (WW) | \$21,204 |
| | 10834 | Minor Works - Stage 1 Schools | \$7,185 |
| | 10838 | Minor Works - Banks Avenue | \$119,076 |
| | 10859 | CCC - Private Laterals Keyes Road (WW) | \$49,616 |
| | 10315 | Ferner Street - Emergency Works | \$223,901 |
| | 10336 | Kingsford & Liggins Streets (Projects 10336 & 10885) | \$204,574 |
| | 10873 | Catchment Study - PS36 Catchment, Area NE4 split into 10959-65 (WW) | \$0 |
| | 10882 | Emergency Work - Beatty Street | \$235,537 |
| | 10903 | Catchment Study - Parklands & North New Brighton split into 10975-78 NE12, NE13 (WW) | \$0 |
| Fendalton-Waimari | 10354 | Papanui Road - Emergency Work | \$53,511 |
| | 10480 | R126 Monavale Footbridge | \$31,575 |
| | 10590 | Thornycroft Street - Pri4 WM | \$125,632 |
| Central City | 10447 | Fitzgerald Ave Temp Sewer Replacement (WW) | \$22,117 |
| | 10455 | Fitzgerald Ave Twin Bridges Temp Repairs | \$0 |
| | 10726 | Stormwater Pump Station 203 | \$44,715 |
| | 10764 | PM 3 Temporary Repair (Complex Emergency) | \$3,365 |
| | 10790 | Liverpool Street Water Main (CBD) | \$107,959 |

| Ward | Reference | Project | Project Life to Date Cost |
|------------------|-----------|--|---------------------------|
| | 10880 | Kilmore St Brick Barrel Repair - Emergency Work (WW) | \$190,110 |
| | 10941 | Minor Works - 789 Colombo Street (WS) | \$37,493 |
| Hagley-Ferrymead | 10301 | CCC - Tanner Street Replacement Well (WS) | \$15,792 |
| | 10319 | St Martins Package 01 (WW) Wilsons Rd South, St Martins Rd and Gamblins Rd | \$1,505,454 |
| | 10326 | Retreat Road | \$678,774 |
| | 10333 | PM 57 - Replacement (Stage 2 March) | \$2,075,207 |
| | 10337 | Avonside - WW Trunk Sewer | \$204,090 |
| | 10341 | River Road - Siphon (WW) | \$667,409 |
| | 10350 | Avonside Drive/Retreat - Gravity Sewer Repair | \$93,588 |
| | 10352 | Avonside Drive/Morris Bowie - Gravity Sewer Temp. Solution | \$86,006 |
| | 10353 | 294 Avonside Drive - Temp. Solution | \$241,562 |
| | 10358 | PS57 - McCormacks Bay Rd Sewer Overflow Renewal | \$170,231 |
| | 10361 | PS54 Catchment Temp. Solutions | \$878,397 |
| | 10362 | PS5 - Glade | \$0 |
| | 10372 | Dacre Street | \$125,100 |
| | 10386 | St Andrews Hill Rd Sewer (Major Hornbrook) | \$67,715 |
| | 10391 | Stevens St Watermain | \$164,811 |
| | 10402 | Moorhouse SW BB 02 | \$72,744 |
| | 10406 | 226 Main Road SW | \$4,627 |
| | 10411 | Clifton Reservoir 3 | \$360,172 |
| | 10417 | Upper Balmoral Reservoir | \$406,969 |
| | 10422 | PM 31 Renewal Works (WW) | \$1,591,347 |
| | 10431 | PS15 Alport | \$1,282,063 |
| | 10434 | PS 12 Smith | \$546,105 |
| | 10441 | Ferry Road 873 | \$366,749 |
| | 10442 | PS15 Gould Cres Overflow Structure | \$210,522 |
| | 10448 | PM 12 | \$710 |
| | 10451 | Manning-Ferry | \$16,641 |
| | 10452 | WW No Service Grafton | \$134,202 |
| | 10454 | 225 Linwood Ave | \$74,062 |
| | 10458 | 31 Stanmore Road | \$49,606 |
| | 10463 | Hamner Street - waste water relay | \$72,948 |
| | 10471 | 33 River Terrace | \$38,939 |
| | 10473 | Wickham St Watermain | \$307,303 |

| Ward | Reference | Project | Project Life to Date Cost |
|------|--------------|--|---------------------------|
| | | Replacement | |
| | 10478 | F805 McCormacks Bay 1 Footbridge | \$8,795 |
| | 10479 | F806 McCormacks Bay 2 Footbridge | \$7,959 |
| | 10481 | R223 Heathcote Barrage | \$5,703 |
| | 10496 | PS13 Tilford | \$10,207 |
| | 10497 | PS 10 Linwood WW | \$13,921 |
| | 10499 | Saxon Street Waste Water | \$15,687 |
| | 10505 | Stanmore Road Lateral | \$0 |
| | 10537 | Patten Street | \$633,749 |
| | 10539 | Brittan Street | \$564,450 |
| | 10586 | PM 107 | \$261,078 |
| | 10609 | PM 47 | \$24,815 |
| | 10612 | McCormacks Bay Reservoir No 2-2 | \$692,173 |
| | 10613 | Mt Pleasant Reservoir 2/2 | \$95,660 |
| | 10618 | Beachville Road Pressure + Gravity Main | \$476,693 |
| | 10629 | McCormacks Bay Rd WR mains and submains (WS) | \$2,185,608 |
| | 10644 | 55 Clark St WW | \$759 |
| | 10666 | Head Street - Esplanade to Nayland (WS) | \$78,803 |
| | 10677 | Beachville Watermain (WS) | \$248,043 |
| | 10679 | Moncks Spur No. 3 | \$213,631 |
| | 10687 | Wakefield Ave Watermain (WS) | \$156,900 |
| | 10716 | PM 34 Sumner - Replacement | \$1,596,534 |
| | 10729 | WW, Gravity Bridal Path and Cannon | \$250,799 |
| | 10734 | WW, 262 Main Road | \$0 |
| | 10739 | Heberden Ave Temporary Solution (WW) | \$102,792 |
| | 10743 | 281 River Rd Siphon (WW) | \$0 |
| | 10746 | Ruru Ave Repair PM 11 | \$42,191 |
| | 10747 | Bromley Waste Water Treatment | \$23,860 |
| | 10753 | WW No Service Glendever (WW) | \$2,081 |
| | 10763 | Moncks Bay Walkway - Temp Repairs | \$45,416 |
| | 10779 | CCC - Linwood Avenue Water Main | \$455,656 |
| | 10782 | 15 Dunoon Place Emergency Stabilisation / Sewer Repair | \$179,641 |
| | 10792 | Truro Street Emergency Waste Water Sewer Renewal (Van Asch School) | \$177,834 |

| Ward | Reference | Project | Project Life to Date Cost |
|-----------------------------|-----------|--|---------------------------|
| | 10830 | Minor Works - Bridge Minor Works Project Package 01 Rooding | \$10,837 |
| | 10835 | Minor Works - Avonside Girls High School | \$78,494 |
| | 10875 | Catchment Study - Avonside & Linwood Area CE-5,6,7,9,10,11,12 (WW) | \$0 |
| | 10876 | Catchment Study - Avonside & Linwood Area CE5,6,7,9,10,11,12 (RD, SW & WS) | \$96,101 |
| | 10772 | Monks Bay Main Road Emergency Repair (WW) | \$15,503 |
| Lyttelton-Mt Herbert | 10382 | Lyttelton Treatment Plant Access | \$ - |
| | 10636 | Priority Roads - Governors Bay Road Rebuild | \$389,090 |
| | 10672 | Sutton Quay Retaining wall 441 (RW) | \$39,384 |
| | 10878 | Minor Works - Cunningham Terrace & Sumner Rd Temp Access Works | \$35,211 |
| | 10418 | Lyttelton Dyers Road Pump Station (WS, PS) | \$912 |
| Riccarton-Wigram | 10309 | Halswell Minor Rooding Works - All Areas | \$322,784 |
| | 10380 | Halswell WW Package 02 | \$2,031,265 |
| | 10387 | Townshend Crescent Wastewater | \$46,679 |
| | 10389 | Sparks Rd Watermain | \$175,935 |
| | 10392 | Halswell WW Package 1 (WW) | \$2,109,992 |
| | 10408 | Glovers Street water (WS) | \$141,990 |
| Shirley-Papanui | 10308 | Riselaw Street | \$91,424 |
| | 10313 | PM 6 - Harrison St | \$206,843 |
| | 10322 | Ranfurly Street | \$118,626 |
| | 10323 | Chrystal Street | \$83,927 |
| | 10329 | Hope Street | \$145,208 |
| | 10330 | Orontes Street - WS | \$90,022 |
| | 10334 | PM 7 - Stapletons Road | \$242,909 |
| | 10345 | Nancy Ave / Weston Road | \$16,297 |
| | 10348 | Shirley Road - Wastewater (Emergency Repair) | \$696 |
| | 10369 | Orion Street | \$41,881 |
| | 10435 | Temporary Gravity Sewer Lower Styx Road | \$1,065,429 |
| | 10437 | PM 40 Marshlands | \$585,684 |
| | 10439 | Heyders 29-65 (WW) | \$320,151 |

| Ward | Reference | Project | Project Life to Date Cost |
|---------------------------|-----------|--|---------------------------|
| | 10446 | Brooklands Roding - Temporary Repairs | \$364,289 |
| | 10460 | 449 Durham Street North | \$304,376 |
| | 10536 | Edgware Rd - WW | \$1,828,204 |
| | 10555 | Madras Street / Forfar Wastewater | \$588,121 |
| | 10805 | Madras Street Road, Storm Water & Water Supply Repairs | \$340,631 |
| | 10837 | Minor Works - Shirley Boys High School | \$112,202 |
| | 10851 | Minor Works - Marshland Road & Belfast Road | \$303,656 |
| | 10581 | Catchment Study - PS7 (10810, 10811, 10812, 10813, 10814, 10815, 10816, 10817) | \$1,098 |
| Spreydon-Heathcote | 10320 | Murray Aynsley Reservoir 2 | \$148,161 |
| | 10381 | Rydal St (WW) | \$921,784 |
| | 10390 | Centaurus Rd Watermain | \$143,772 |
| | 10393 | Smartlea WW Emergency Repair | \$109,989 |
| | 10396 | 75 Wilsons Emergency Repair | \$825 |
| | 10397 | Glenelg Spur 01 | \$142,696 |
| | 10404 | Hollis Ave Water (WS) | \$177,601 |
| | 10410 | Hollis Ave WW | \$945,569 |
| | 10432 | PS19 Beckford | \$3,201 |
| | 10433 | PS20 Locarno | \$19,394 |
| | 10476 | F207 Aynsley Tce Footbridge | \$8,319 |
| | 10477 | F212 Sloan Tce Footbridge | \$593 |
| | 10545 | PS19 - Syphon | \$0 |
| | 10597 | Huntsbury Reservoir (WS) | \$4,071,157 |
| | 10717 | Colombo St (South) Bridge - Concept only, no construction work undertaken (RD) | \$2,207 |
| | 10745 | CCC - Sydenham Stn Replace Wells (WS) | \$236,486 |
| | 10755 | PS19 Fifield - 171 Fifield - Sheetpiling protection of riverbank | \$114,715 |
| | 10787 | Rydal Street Water Supply, Storm Water and Roding Renewals (SW,WS, RD) | \$409,453 |
| Grand Total | | | \$67,679,347 |

4.2 NON-SCIRT Work Activity

4.2.1 Introduction

The following section of the report included a progress report against infrastructure and other associated rebuild projects that are not being delivered by SCIRT. It includes a report on progress on Greenspace projects, Christchurch Wastewater Treatment Plant and Organics Processing Plant, Burwood Landfill and Water Supply Wells.

4.2.2 Greenspace

| Ward | Work Package Number | Project | Description | Number of projects in package | Phase | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|------------------------------|---------------------|---------------------------------------|---|-------------------------------|---------------|------------------------------|-------------------------------|----------------|
| Banks Peninsula Wards | WP0000537 | PARKS Marine Structures Repairs | Marine Structures Repairs | 13 | CONSTRUCTION | 01/08/2011 | 30/06/2013 | \$462,000 |
| | WP0000551 | PARKS Marine Structures Assessments | Marine Structures Assessments | 10 | COMPLETE | 01/08/2011 | 30/11/2011 | \$50,000 |
| | WP0000783 | B/P Retaining Walls | Retaining wall repairs in parks and cemeteries on Banks Peninsula | 4 | INVESTIGATION | 01/07/2012 | 30/06/2013 | \$241,000 |
| Burwood Pegasus | WP0000251 | PARKS CEAF 1.1 Sth New Brighton CAPEX | Hard surface and playground undersurfacing renewals | 4 | CONSTRUCTION | 01/10/2011 | 30/06/2013 | \$227,000 |
| | WP0000257 | PARKS CEAF 1.2 B/P CAPEX | Bexley, Avondale and Burwood Parks hard surfacing renewals | 3 | COMPLETE | 01/09/2011 | 31/10/2011 | \$60,200 |
| | WP0000258 | PARKS CEAF 1.2 B/P OPEX | Hard surface repairs | 11 | COMPLETE | 01/10/2011 | 29/02/2012 | \$131,000 |
| | WP0000284 | PARKS CEAF 2.6 TRAVIS CAPEX | Hard surface renewals | 5 | COMPLETE | 01/12/2011 | 29/02/2012 | \$175,500 |
| | WP0000285 | PARKS CEAF 2.7 AVON PARK CAPEX | Hard surface renewals | 3 | INVESTIGATION | 01/03/2012 | 30/06/2013 | \$290,550 |
| | WP0000286 | PARKS CEAF 2.8 ESTUARY CAPEX | Hard surface renewals | 1 | INVESTIGATION | 01/03/2012 | 30/06/2013 | \$300,000 |
| City wide | WP0000177 | PARKS Playground Softfall - CAPEX | Replacement of contaminated softfall to playgrounds | 24 | COMPLETE | 01/08/2011 | 30/11/2011 | \$358,460 |
| | WP0000206 | PARKS Playground Softfall - OPEX | Repairs to playground undersurfacing | 8 | COMPLETE | 01/08/2011 | 20/12/2011 | \$46,500 |
| | WP0000269 | PARKS CEAF 2.2 S/P,F/W,R/W,L/M OPEX | Hard surface and minor structural repairs | 11 | COMPLETE | 01/03/2012 | 31/05/2012 | \$54,500 |

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| Ward | Work Package Number | Project | Description | Number of projects in package | Phase | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|------|---------------------|---------------------------------------|--|-------------------------------|---------------|------------------------------|-------------------------------|----------------|
| | WP0000312 | PARKS Hard Surface Nthn & Sthn - OPEX | Hard surface repairs | 58 | CONSTRUCTION | 01/03/2012 | 30/04/2013 | \$127,950 |
| | WP0000313 | PARKS Hard Surfaces Nthn & Sthn CAPEX | Hard surface renewals | 14 | CONSTRUCTION | 01/03/2012 | 30/04/2013 | \$204,600 |
| | WP0000318 | PARKS Hard Surfaces Eastern CAPEX | Hard surface renewals | 23 | CONSTRUCTION | 01/03/2012 | 30/04/2013 | \$604,250 |
| | WP0000321 | PARKS Hard Surface Eastern - OPEX | Hard surface repairs | 76 | CONSTRUCTION | 01/03/2012 | 30/04/2013 | \$227,900 |
| | WP0000323 | PARKS City Wide Turf Repairs - OPEX | Repairs to non sports turf surfaces | 110 | COMPLETE | 01/11/2011 | 31/05/2012 | \$390,550 |
| | WP0000357 | PARKS Retaining Walls CAPEX | Minor retaining wall renewals | 5 | CONSTRUCTION | 01/08/2011 | 30/06/2013 | \$252,000 |
| | WP0000358 | PARKS Retaining Wall Repairs | Minor retaining wall repairs | 24 | CONSTRUCTION | 01/08/2011 | 30/06/2013 | \$199,650 |
| | WP0000376 | PARKS Minor Structures CAPEX | Minor structures renewals | 8 | INVESTIGATION | 01/08/2011 | 30/06/2013 | \$176,000 |
| | WP0000377 | PARKS Minor Structures Repairs | Minor structures repairs | 60 | CONSTRUCTION | 01/08/2011 | 30/06/2013 | \$417,650 |
| | WP0000571 | PARKS 2012 Sports Fields Repairs | Repairs to sports turf 2011/12 | 45 | COMPLETE | 01/09/2011 | 31/03/2012 | \$496,614 |
| | WP0000768 | PARKS Mature Tree Replacements | Tree renewals at Hagley Park and Sth Brighton Domain | 2 | COMPLETE | 01/03/2012 | 30/06/2013 | \$100,000 |
| | WP0000769 | PARKS Port Hills Restoration | Port Hills rock fencing and planting | 2 | INVESTIGATION | 01/07/2012 | XXXX | \$200,000 |
| | WP0000205 | PARKS Sports Fields Repair - Moderate | Repairs to sports turf | 19 | COMPLETE | 01/05/2011 | 31/07/2011 | \$254,000 |
| | WP0000207 | PARKS Sports Fields Repair - Minor | Repairs to sports turf | 23 | COMPLETE | 01/05/2011 | 31/07/2011 | \$122,550 |
| | WP0000779 | Structural | Bridge repairs on Parks City wide | 14 | INVESTIGATION | 01/07/2012 | 30/06/2014 | \$766,200 |
| | WP0000780 | Regional Parks | Repairs to structures and hard surfaces | 6 | INVESTIGATION | 01/07/2012 | 30/06/2013 | \$465,000 |

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| Ward | Work Package Number | Project | Description | Number of projects in package | Phase | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|-------------------------|---------------------|--|--|-------------------------------|---------------|------------------------------|-------------------------------|----------------|
| | WP0000781 | Trees | City wide tree renewals | 1 | CONSTRUCTION | 01/07/2012 | 30/06/2013 | \$500,000 |
| | WP0000782 | Ponds | Repairs to small ponds and outflows in parks | 2 | COMPLETE | | | \$50,000 |
| | WP0000784 | Cemeteries - Operational | Repairs and make safe work to headstones in Operational cemeteries | 18 | COMPLETE | 01/12/2011 | 30/06/2013 | \$250,000 |
| | WP0000785 | Cemeteries - Heritage | Repairs and make safe work to headstones in Heritage cemeteries | 3 | INVESTIGATION | 01/07/2012 | 30/06/2015 | \$250,000 |
| | N/A | On Hold | Projects on hold due to them being in Red Zoned areas, cordons, rock fall risk etc. Depending on land decisions some of these repairs/renewals may become redundant in the future. | 141 | ON HOLD | XXXX | XXXX | \$6,133,100 |
| | N/A | Port Hill Parks/Tracks Reopening Project | Port Hill Parks/Tracks Reopening | 21 | INVESTIGATION | XXXX | XXXX | \$2,196,020 |
| Hagley Ferrymead | WP0000252 | PARKS Victoria Lake CAPEX | Relining Victoria lake | 1 | COMPLETE | 01/07/2011 | 29/02/2012 | \$500,000 |
| | WP0000253 | PARKS CEAF 1.3 Hagley Pk/Bot.Gdns CAPEX | Hard surface and playground undersurfacing renewals | 5 | COMPLETE | 01/09/2011 | 29/02/2012 | \$295,000 |
| | WP0000254 | PARKS CEAF 1.4 Hagley Pk North CAPEX | Irrigation and Turf renewals | 2 | COMPLETE | 01/07/2011 | 31/07/2011 | \$90,000 |
| | WP0000263 | PARKS CEAF 1.6 H/F CAPEX | Hard surface renewals | 5 | COMPLETE | 01/10/2011 | 29/02/2012 | \$103,500 |
| | WP0000264 | PARKS CEAF 1.6 H/F OPEX | Hard surface, track and minor structure repairs | 20 | COMPLETE | 01/10/2011 | 29/02/2012 | \$178,499 |

ATTACHMENT 1 TO CLAUSE 1 ENVIRONMENT AND INFRASTRUCTURE COMMITTEE 1. 11. 2012

| Ward | Work Package Number | Project | Description | Number of projects in package | Phase | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|---------------------------|----------------------------|--|--|--------------------------------------|---------------|-------------------------------------|--------------------------------------|-----------------------|
| | WP0000265 | PARKS CEAF 1.8 BOT. GARDENS CAPEX | Playground undersurfacing repairs | 1 | COMPLETE | 01/10/2011 | 29/02/2012 | \$50,000 |
| | WP0000287 | PARKS CEAF 2.9 VICTORIA SQUARE CAPEX | Hard surface, track and minor structure renewals | 4 | CONSTRUCTION | 01/12/2012 | 30/06/2013 | \$727,000 |
| | WP0000288 | PARKS CEAF 2.10 CENTRAL CITY PARKS CAPEX | Hard surface renewals | 3 | ON HOLD | XXXXXXXXX XXX | XXXXXXXXX XXX | \$15,000 |
| | WP0000289 | PARKS CEAF 2.10 CENTRAL CITY PARKS OPEX | Hard surface, track and minor structure repairs | 10 | ON HOLD | XXXX | XXXX | \$14,100 |
| | WP0000767 | PARKS Sumner/Scarborough Restoration | Hard surface renewals | 9 | CONSTRUCTION | 01/12/2011 | 30/04/2013 | \$187,000 |
| Riccarton Wigram | WP0000280 | PARKS CEAF 2.5 MONA VALE CAPEX | Hard surface, bridge and wall renewals | 5 | INVESTIGATION | 01/07/2012 | 30/06/2013 | \$292,000 |
| Shirley Papanui | WP0000255 | PARKS CEAF 1.5 Groynes CAPEX | Car Park, Driveway, Turf, Track and Jetty renewals | 6 | COMPLETE | 01/08/2011 | 30/09/2011 | \$106,000 |
| | WP0000256 | PARKS CEAF 1.7 Temp Changing Rooms CAPEX | Portable changing facilities for sports parks | 2 | CONSTRUCTION | 01/02/2012 | 31/12/2012 | \$300,000 |
| | WP0000268 | PARKS CEAF 2.1 English Park CAPEX | Car Park renewal | 1 | COMPLETE | 01/08/2011 | 30/10/2011 | \$247,500 |
| | WP0000277 | PARKS CEAF 2.3 S/P OPEX | Hard surface and track repairs | 5 | COMPLETE | 01/03/2012 | 31/05/2012 | \$20,500 |
| | WP0000278 | PARKS CEAF 2.3 S/P CAPEX | Hard surface renewals | 3 | COMPLETE | 01/03/2012 | 31/05/2012 | \$90,000 |
| | WP0000778 | Roto Kohatu | Repairs to bankworks at Roto Kohatu Reserve | 1 | COMPLETE | 01/02/2011 | 30/04/2011 | \$200,000 |
| Spreydon Heathcote | WP0000279 | PARKS CEAF 2.4 S/H OPEX | Hard surface and minor structural repairs | 11 | COMPLETE | 01/11/2011 | 31/03/2012 | \$86,000 |
| | | | | | | | | |
| | | | | | | | | |

ATTACHMENT 1 TO CLAUSE 1 ENVIRONMENT AND INFRASTRUCTURE COMMITTEE 1. 11. 2012

| Ward | Work Package Number | Project | Description | Number of projects in package | Phase | Estimated Construction Start | Estimated Construction Finish | Estimated Cost | |
|------|---------------------|--|-------------|-------------------------------|---------------|------------------------------|-------------------------------|----------------|--|
| | | ACC: Auckland City Council grant | | | | | | | |
| | | CEAF: Canterbury Earthquake Appeal fund | | | | | | | |
| | | | | | | | | | |
| | | NOTE: Canterbury Earthquake Appeal Fund projects are billed directly to Dept. Internal Affairs. | | | | | | | |
| | | CCC labour costs to design, project manage and supervise these projects are charged to 721/120 codes depending on the asset type | | | | | | | |
| | | | | | | | | | |
| | | Status Summary | | 67 | Investigation | | | \$5,176,770 | |
| | | | | 293 | Construction | | | \$4,437,000 | |
| | | | | 352 | Complete | | | \$4,506,873 | |
| | | | | 154 | On Hold | | | \$6,162,200 | |
| | | | | | | | | | |
| | | | | | | | | \$20,282,843 | |

4.2.3 Wastewater Treatment Plant and Organics Processing Plant

| Project | Description | Phase | Estimated Construction Start | Estimated Construction End | Estimated Cost |
|-------------------------------|---|---|---|--|----------------|
| Clarifiers | C4 - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new structure. | Complete | Nov 11 | 3 Feb 12 | \$9,432,768 |
| | C3 - New structural bottom - CIPP repairs to influent pipe. - Modify Arms to suit new structure | Complete | 24 Jan 12 | 30 June 12 | |
| | C1 - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new Structure | Construction | July 12 | 15 Feb 13 | |
| | C2 - Verify that emergency repairs have returned asset to pre-EQ functionality and asset condition. | Investigation | | | |
| Civil & Structural | <ul style="list-style-type: none"> • Paving • C2 water • Crack repairs to structures. • Reclad Digester 2 • PST/SCT & Grit Tank Repairs | Construction Complete Construction Complete Construction | Oct 11 Oct 11 April 11 Sept 11 Aug 12 | Sept 12 Feb 12 Nov 12 Dec 11 Feb 13 | \$4,514,760 |
| Oxidation Ponds | <ul style="list-style-type: none"> • Transfer structures 1-4 • Transfer Structure 4-5. • Pond banks strengthen and reinstate to design levels. • Estuary outfall structure • Dyers Road transfer structure | Complete Complete Construction Construction Tender | Oct 11 Dec 11 Jan 12 July 12 Oct 12 | Feb 12 Mar 12 Nov 12 Sept 12 Dec 12 | \$18,122,788 |
| Galleries | <ul style="list-style-type: none"> • South Gallery – drainage and structural <i>Proposed repair strategy unsuccessful, redesign underway</i> • North Gallery – drainage & joints • Diagonal Gallery – drainage & joints • Pump Stn A – drainage & joints • Sludge Rm A – drainage & joints | Design Construction Design Design Design | Oct 12 June 12 Oct 12 Dec 12 Jan 13 | Dec 12 Oct 12 Dec 12 Jan 13 Mar 13 | \$1,353,550 |
| CWTP Trickling Filters | <ul style="list-style-type: none"> • Trickling Filter 1 • Trickling Filter 2 | Design Design | Nov 12 Dec 12 | Feb 13 Mar 13 | |

ATTACHMENT 1 TO CLAUSE 1 ENVIRONMENT AND INFRASTRUCTURE COMMITTEE 1. 11. 2012

| Project | Description | Phase | Estimated Construction Start | Estimated Construction End | Estimated Cost |
|---|---|--|--|--|-----------------------|
| | <ul style="list-style-type: none"> • TF 2Outflow Pipe Repair | Design | Jan 13 | Mar 13 | \$1,000,000 |
| Mechanical & General Repairs | <ul style="list-style-type: none"> • Digesters 2 • Digesters 1 • Digester 4 • Digester 3 • Digesters 5 • Digester 6 • Buffer Tank • Primary Sedimentation Tanks • Bio- Solids Holding Tank | Construction Investigation Investigation Investigation Investigation Complete Construction Design | Oct 11 Oct 12 Jan 13 Mar 13 Jan 14 Jun 14 Nov 11 June 11 Jan 13 | Dec 12 Mar 13 Jun 13 Sept 13 Jun 14 Nov 14 Jan 12 July 12 May 13 | \$5,450,250 |
| Organics Processing Plant | <ul style="list-style-type: none"> • Demolish & Reconstruct Tunnels • Repair & Strengthen Process Hall • Repair Hard Standing | Construction | Mar 12 | July 13 | \$9,518,133 |
| Facilities | <ul style="list-style-type: none"> • Laboratory • Control room • Workshops • Offices/ Cafeteria/ Mtg room | Design Design Investigation Investigation | Feb 13 Feb 13 Feb 13 Feb 13 | June 13 June 13 June 13 June 13 | \$2,741,000 |
| Outlet Structure | <ul style="list-style-type: none"> • Replace Broken Outlet Pipes • New Outlet Structure • Decommission Broken Pipes | Design | Nov 12 | Mar 13 | \$2,300,000 |
| | TOTAL | | | | \$54,433,249 |

In the table above, the bolded text identifies a change in activity since the previous monthly report.

4.2.4 Burwood Landfill

| Project | Description | Material Received (tonnes) | Material Processed (tonnes) | Phase | Estimated Construction Start | Estimated Construction End | Estimated Cost |
|--|--|----------------------------|-----------------------------|------------------|------------------------------|----------------------------|---|
| Burwood Landfill Liquefaction and Infrastructure Rebuild Waste Disposal | <ul style="list-style-type: none"> Prepare areas for disposal Operate and maintain disposal site Restoration and landscaping Resource consent application Consultation documents to affected parties Consultation Feedback documents to affected parties Consents granted | 366,200 | 366,200 | Completed | Feb 11 | Jan 12 | Self Funded |
| | | | | Operation | Feb 11 | Dec 13 | |
| | | | | Investigation | Jan 12 | Dec 13 | |
| | | | | Investigation | Jan 12 | Aug 12 | |
| | | | | Completed | Apr 12 | Jul 12 | |
| Completed | Jun 12 | Jul 12 | | | | | |
| | | | | Completed | July 12 | Sept 12 | |
| Burwood Landfill Residual Demolition Waste Disposal | <ul style="list-style-type: none"> Design of new cell for residual waste Cell construction Operate and maintain disposal site Restoration and landscaping Resource consent application Consultation documents to affected parties Consultation Feedback documents to affected parties Consents granted | 0 | 0 | Design | Oct 11 | Jun 12 | To be funded by Transwaste Canterbury |
| | | | | Design | Mar 12 | Dec 12 | |
| | | | | Design | Sep 12 | Dec 17 | |
| | | | | Design | Jul 17 | Dec 17 | |
| | | | | Submitted | Oct 11 | Aug 12 | |
| Completed | Apr 12 | Jul 12 | | | | | |
| | | | | Completed | Jul 12 | Aug 12 | |
| | | | | Completed | Jul 12 | Sep 12 | |
| Burwood Resource Recovery Park Demolition Sorting and Processing Facility | <ul style="list-style-type: none"> Construct areas for storage of material and associated roading Design of sorting plant Construction of sorting plant Sorting operation Rehabilitation and landscaping Resource consent application Consultation documents to affected parties Consultation Feedback documents to affected parties Consents granted | 352,000 | 0 | Complete | Feb 11 | Jun 11 | To be funded by Transwaste Canterbury |
| | | | | Completed | Mar 11 | Jun 12 | |
| | | | | Construction | Jul 12 | Dec 12 | |
| | | | | Operation | Dec 12 | Dec 17 | |
| | | | | Design | Jul 17 | Dec 17 | |
| Submitted | Oct 11 | Aug 12 | | | | | |
| Completed | Apr 12 | Jul 12 | | | | | |
| | | | | Completed | Jun 12 | Jul 12 | |
| | | | | Completed | Jul 12 | Sep 12 | |
| TOTAL | | 718,200 | 366,200 | | | | |

In the table above, the bolded text identifies a change in activity since the previous monthly report.

4.2.5 Wells

The damage to wells has been reported separately from the remainder of the non-SCIRT infrastructure rebuild because much of the wells repair work is reactionary due to the ongoing aftershocks.

Forward programming is limited by the reactionary work and the operational requirements of the water supply network, meaning that each package of work is programmed “on the fly” on a prioritised basis before it is issued.

The programme of work must be kept flexible in order to keep as many damaged wells operational as possible while at the same time moving forward with the repair and replacement programme. Only a limited number of wells can be taken out of service at one time to avoid affecting the demand on water supply network, and to minimise water restrictions.

| | August At Ground Level | September At Ground Level | August Below Ground Level | September Below Ground Level | August Totals | September Totals |
|--|------------------------------|---------------------------------|---------------------------------|------------------------------------|------------------|---------------------|
| Total number of active wells | | | | | 154 | 154 |
| Wells yet to be repaired ^{+*} | 33 | 34 | 42 | 44 | 75 | 78 |
| Cost Estimate all repairs ⁺ | \$4,692,000 | \$4,692,000 | \$17,923,000 | \$18,022,000 | \$22,615,000 | \$22,714,000 |
| Wells repaired to date ^{+*} | 69 | 68 | 92 | 95 | 161 | 163 |
| Cost to date ⁺ | \$2,778,609 | \$2,830,173 | \$6,029,818 | \$6,344,069 | \$8,808,427 | \$9,174,242 |

+ includes replacement wells

- some wells are damaged both at and below ground level

5. COMMUNICATIONS

5.1 Strategic Communications

The Mayor and Minister launched SCIRT's forward schedule of work on 7 September, at a media conference at the new Pages Road pump station site. The schedule received good media coverage and staff have since been involved in a series of Community Board meetings to explain the programme in more detail. Detailed information on the forward schedule, including a visualisation tool, can be found online at www.strongerchristchurch.govt.nz. Monthly progress reports are now going through Christchurch City Council's Environment and Infrastructure Committee before being presented to the full Council.

Monthly progress updates and key information will also be communicated through planned advertising, media and Council and Government publications.

5.2 Operational Communications (SCIRT)

5.2.1 Key Outcomes

The results from the latest face to face survey of areas where SCIRT is working show an 83% average satisfaction rating with SCIRT communication. During September, SCIRT delivered 88 start work notices to more than 24,000 properties. SCIRT communications staff carried out 667 direct interactions with residents through door knocking, responded to 308 hotline calls and 160 resident emails. The web was updated 103 times, three e-newsletters were sent and 26 tweets were made. SCIRT is coordinating communication with Orion for the installation of one of its 66kv cables, promoting strategic planning. SCIRT has attended all CERA TC3 meetings (~22) during the month, helping demonstrate a coordinated, cross-agency response to the city's recovery. Additionally, a community meeting regarding the traffic management proposed for the Bridge Street Bridge rebuild was held and the information presented was well-received by the community.

5.2.2 Upcoming Priorities

A number of community meetings are planned for the near future including one about retaining walls in Mt Pleasant where a number of walls are due to begin in the near future, and another about the bridge repair strategy in the east.

Communication about traffic management and safety around worksites will continue to roll out in the coming month. Plans to improve the SCIRT website are underway. The aim is to build GIS functionality into site so that people can type in an address and receive information about works nearby. This will be in place by the end of the year.

5.3 Summary of Media Coverage

There was positive media coverage about SCIRT in September, with around 30 positive stories compared to six negative stories. The media event to launch the SCIRT schedule of work generated significant positive media coverage, locally, nationally and overseas. The event was well attended by elected representatives and other key stakeholders.

6. ENVIRONMENT

6.1 Key Outcomes

- SCIRT and Beca have won the Resource Management Law Association's Project Award for development of the multi criteria assessment design tool.
- Environment Canterbury secondee into SCIRT is a key planning role.
- Consents have been granted for Bridge Street Bridge, and a variation for pump station construction, through a collaborative consenting approach with contractor, SCIRT, ECan and an iwi consultant.
- Re-ignition of relationships with Historic Places Trust and Council's iwi consultant. Regular meetings are scheduled to maintain momentum.

6.2 Upcoming Priorities

- Development of a SCIRT environmental training programme in conjunction with Environment Canterbury.
- Define the role of Council's iwi consultant in compliance monitoring of SCIRT sites.
- Information sharing platform under development to detail consent compliance information between delivery teams, the IST and regulators.

6.3 Environmental Statistics

| Description | September 2012 | LTD |
|---------------------------------------|----------------|-----|
| Environmental Hazards | 86 | 679 |
| Environmental Opportunities | 79 | 172 |
| Environmental Team Initiatives | 12 | 53 |
| Community Organised Events | 2 | 18 |
| Number of Environmental Incidents | 40 | 220 |
| Infringement Notices | - | - |
| Abatement Notices | - | - |
| Criminal Legal Proceedings | - | - |
| Fines | - | - |
| % of waste reduced, re-used, recycled | 21 | 67 |

APPENDIX A – Schedule of Required Weight and Speed Restrictions on Under Strength and Earthquake Damaged Road Bridges

| Bridge No. | Bridge name | Name of Road | Weight Restriction | | Max Speed Limit (km/h) |
|------------|------------------------------------|-------------------------|--|----------------------------|------------------------|
| | | | Gross Weight (Max Sum of Axle Weights) | Max Weight on Any One Axle | |
| R101 | Bridge Street | Bridge Street | 3,500 kg | - | 30 |
| R102 | Pages Road | Pages Road | - | - | 30 |
| R104 | Avondale Road | Avondale Road | - | - | 30 |
| R106 | Gayhurst Road | Gayhurst Road | 3,500 kg | - | 30 |
| R107 | Swanns Road | Swanns Road | - | - | 30 |
| R114 | Colombo Street (Avon) | Colombo Street | - | - | 30 |
| R115 | Armagh Street (Cambridge – Oxford) | Armagh Street | - | - | 30 |
| R118 | Hereford Street | Hereford Street | - | - | 30 |
| R122 | Armagh Street (Hagley) | Hagley Park | 3,500 kg | - | - |
| R124 | Helmores Lane | Helmores Lane | Closed to vehicular traffic | | |
| R132 | Kahu Rd East | Kahu Road East | - | - | 30 |
| R137 | Poynder Avenue | Poynder Avenue | - | 2,000 kg | 30 |
| R211 | Bowenvale Avenue | Bowenvale Avenue | 16,000 kg | 8,200 kg | 10 |
| R702 | Moorhouse Avenue O/B | Moorhouse Avenue | - | - | 30 |
| R833 | Scruttons Road No 2 | Scruttons Road | 4,500 kg | 2,250 kg | 30 |
| R835 | Van Asch Street | Van Asch Street | 3,500 kg | - | 30 |
| A01 | Bossu Road | Bossu Road | - | - | 10 |
| A23 | Robinsons Bay Road / Tizzards Road | Tizzards Road | 50 % Class 1 | - | 10 |
| A25 | Tizzards Road 3 | Tizzards Road | 50 % Class 1 | - | 10 |
| A26 | Tizzards Road 4 | Tizzards Road | - | - | 10 |
| A27 | Tizzards Road 5 | Tizzards Road | 80 % Class 1 | - | 10 |
| A32 | Takamatua – Frasers 1 | Old Le Bons Track | 80 % Class 1 | - | 10 |
| A34 | Akaroa Boat Compound 1 | Akaroa Boat Compound | 30 % Class 1 | 2,460 kg | 10 |
| A36 | Akaroa Boat Compound 2 | Akaroa Boat Compound | 30 % Class 1 | 2,460 kg | 10 |
| A39 | Stoney Bay Old Quarry | Stoney Bay Road | - | - | 10 |
| A57 | School Road, Okains Bay | School House Road | 60 % Class 1 | 5,160 kg | 10 |
| A70 | Menzies Bay | Menzies Bay Road | 3,500 kg | - | 10 |
| A84 | Holmes Bay Valley Road 3 | Holmes Bay Valley Road | 50 % Class 1 | - | 10 |
| A90 | French Farm Valley 1 | French Farm Valley Road | - | - | 10 |
| A91 | French Farm Winery | French Farm Valley Road | - | - | 10 |
| A93 | Childrens Bay | Childrens Bay Road | 3,500 kg | - | 10 |
| A99 | Rue Jolie North 1 | Rue Jolie | 3,500 kg | - | 10 |
| A100 | Rue Jolie North 2 | Rue Jolie | 70 % Class 1 | 6,000 kg | 10 |

| Bridge No. | Bridge name | Name of Road | Weight Restriction | | Max Speed Limit (km/h) |
|-------------------|----------------------|----------------------|---|-----------------------------------|-------------------------------|
| | | | Gross Weight (Max Sum of Axle Weights) | Max Weight on Any One Axle | |
| M19 | Wharf Road 2 | Wharf Road | 3,500 kg | - | 10 |
| W10 | Okuti Valley 8 | Okuti Valley Road | - | - | 10 |
| W11 | Reynolds Valley Road | Reynolds Valley Road | 90 % Class 1 | - | 30 |
| W12 | Wrights Road | Wrights Road | 3,500 kg | - | 10 |
| W12A | Wrights Road 2 | Wrights Road | 3,500 kg | - | 10 |
| W55 | Withells Road | Withells Road | - | - | 10 |