



## COUNCIL 16. 2. 2012

### 9. INFRASTRUCTURE REBUILD MONTHLY REPORT

|                                     |  |
|-------------------------------------|--|
| <b>General Manager responsible:</b> | General Manager Capital Programme DDI 941 8235 |
| <b>Officer responsible:</b>         | Infrastructure Rebuild Client Manager          |
| <b>Author:</b>                      | Will Doughty, Senior Project Manager           |

#### PURPOSE OF REPORT

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

#### EXECUTIVE SUMMARY

2. At its 28 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 fifth of what will be a regular Monthly Report that is provided to both Council and the Canterbury Earthquake Recovery Authority (CERA).

#### STAFF RECOMMENDATION

It is recommended that the Council receives the Infrastructure Rebuild Monthly Report for February 2012.

## INFRASTRUCTURE REBUILD

### PROGRESS REPORT

February 2012

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## **1. INTRODUCTION**

The purpose of this report is to provide both 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 5) and also work being delivered under business as usual (BAU) mechanisms (section 6).

## **2. ACTIVITIES FOR THE MONTH**

The main focuses for the activities for the month have been on both the restart following the Christmas break and the forward look for the big year ahead.

The SCIRT offices restarted on 9<sup>th</sup> January. The initial focus was on restarting work on construction sites in a safe and efficient manner. There are now over 50 construction sites for SCIRT works around the city and so ensuring consistency in safety practices on each site is paramount. With this in mind, a SCIRT traffic safety campaign was launched in early February which has gained support of staff at CCC, NZTA and the police.

Also of particular note with regard to construction sites was two significant archaeological discoveries made in the Redcliffs area during January. In one, 600 year old moa remains were found, and in the other two adze heads and North island obsidian were uncovered. In both cases the work crews instigated the SCIRT accidental discovery protocol and archaeologists were quickly involved following a cessation of works.

There has also been a real focus on developing the forward look for the calendar year. There has been an emphasis on developing a detailed SCIRT programme of work for the next 18 months and skeleton 5 year rebuild programme. It is anticipated that draft versions of these programmes will be completed by the end of February and will be used to inform the annual plan process and associated cash flow planning.

Overall, it is anticipated that 2012 will be an important year for the horizontal infrastructure rebuild with construction work activities ramping up significantly over the next few months. There is drive to ensure all of the supporting business systems are developed and operating at an appropriate level to be able to manage the expected increase in activities.

### 3. COMMUNICATIONS AND COMMUNITY ENGAGEMENT

The Stronger Christchurch Infrastructure Rebuild Plan was adopted by the Christchurch City Council in December 2011 and communications were released around its publication.

When considering the Plan, Council wanted to ensure that as the infrastructure is fixed, there are mechanisms in place to identify and prioritise opportunities. With this in mind, meetings with Community Boards are being planned in February and March to identify relevant master plans or strategies adopted by the local Community Boards or Council; identify where there are works in the local areas of a sufficient scale for a different holistic approach to the existing methods to be considered; and identify where the Board thinks it may be appropriate to do more than just replace what was there before.

In addition, the following communications and community engagement activities have been carried out:

- **Work Notices:** 53 work notices which were distributed to more than 8,000 homes.
- **Stronger Christchurch Website:** The website upgrade was completed before Christmas. The website has greater functionality and feedback to date has been positive. It has been updated 62 times and five e-newsletters have been produced to date.
- **Face-to-Face:** There were around 200 face-to-face interactions with stakeholders about specific pieces of work.
- **Public Displays:** Around 240 people visited public displays held at Eastgate and The Palms shopping malls.
- **Media Releases:** Two media releases were drafted, with one released to the Mainland Press and a second distributed to all local media on 3 February.
- **Stakeholder Briefings:** With CANCERN, Rebuild Christchurch and Recover Canterbury were held in December and January with positive feedback from the groups. A briefing was also held with the Council Call Centre.

#### **Plans for Ongoing Communications:**

- SCIRT's traffic safety campaign is underway, this includes: a media release, web video, printed press advertising, use of bumper stickers and the increased use of speed indicator systems around the city.

- Advertisements, including translated advertisements; mobile engagement van being secured; all schools affected by SCIRT works to be contacted and offered a visit; project community newsletters for major projects created; weekly e-newsletters to continue; video pod casts created; public displays continued; fact sheets translated into Chinese, Korean, Samoan.
- More stakeholder briefings are planned in February.
- Wider Christchurch survey is planned for February as part of the Customer Satisfaction KRA.

## **4. FINANCIALS**

Below is a summary of the actual costs to date (end of January 2012) against the Annual Plan and a summary of actual costs to date against the overall infrastructure rebuild estimate. This is presented at a programme level.

### **4.1. 2011/12 Annual Plan - Actual year to date cost against budget**

The 2011/12 Annual Plan includes a budget for the infrastructure rebuild of \$283.5M.

Table 1.0 below presents the actual costs for the year to date of the infrastructure rebuild for each activity against the 2011/12 Annual Plan budget. These costs are up to the end of January 2012.

It includes Work In Progress and contractor set up costs that are still to be allocated across activities when projects are completed.

| FINANCE AS AT 31 JANUARY 2012      |                    |                         |                       |                                |                   |
|------------------------------------|--------------------|-------------------------|-----------------------|--------------------------------|-------------------|
| Activity                           | Description        | 2011/12 Approved Budget | Actual Cost YTD       | Forecast Total Spend This Year | Year End Variance |
| Parks & Open Spaces                | Greenspace         | \$ 6,500,000            | \$ 16,381             | \$ 6,500,000                   | -                 |
| Refuse Minimisation & Disposal     | Solid Waste        | \$ 6,900,000            | \$ 208,325            | \$ 6,900,000                   | -                 |
| Road Network                       | Roading            | \$ 102,700,000          | \$ 2,122,342          | \$ 102,700,000                 | -                 |
| Wastewater Collection              |                    | \$ 67,100,000           | \$ 21,376,105         | \$ 67,100,000                  | -                 |
| Wastewater Treatment & Disposal    | WW Treatment Plant | \$ 69,300,000           | \$ 5,015,545          | \$ 69,300,000                  | -                 |
| Water Supply                       | Water Supply       | \$ 14,200,000           | \$ 1,139,938          | \$ 14,200,000                  | -                 |
| Waterways & Land Drainage          | Stormwater         | \$ 16,800,000           | \$ 11,400,000         | \$ 16,800,000                  | -                 |
| Works in Progress and set up costs |                    | \$ 931,800              | \$ 130,283,977        | \$ 931,800                     | -                 |
| <b>TOTAL</b>                       |                    | <b>\$ 284,431,800</b>   | <b>\$ 171,562,612</b> | <b>\$ 284,431,800</b>          | -                 |

\*The 2011/12 Approved Budget Total includes both the Annual Plan budget and funds allocated from the Mayoral fund for Greenspace projects.



**4.2. Overall Infrastructure Rebuild estimate - Actual life to date costs against estimate.**

The current estimate for the overall rebuild of the City's horizontal infrastructure is \$2.015 billion (excluding contingency and escalation).

Table 2.0 includes the overall life to date costs against the current estimate for the rebuild of the City's horizontal infrastructure.

It also includes Work In Progress and contractor set up costs that are still to be allocated across activities as the projects are completed.

| Activity                           | Description        | Current Estimate of Cost | Actual Cost 2010/11  | Actual Cost 2011/12   | Total Actual Cost     | Forecast to Completion  |
|------------------------------------|--------------------|--------------------------|----------------------|-----------------------|-----------------------|-------------------------|
| Parks & Open Spaces                | Greenspace         | \$ 56,952,381            | \$ 493,384           | \$ 16,381             | \$ 509,765            | \$ 56,442,616           |
| Refuse Minimisation & Disposal     | Solid Waste        | \$ 8,761,905             | \$ 2,063,215         | \$ 208,325            | \$ 2,271,540          | \$ 6,490,364            |
| Road Network                       | Roading            | \$ 892,619,048           | \$ 819,488           | \$ 2,122,342          | \$ 2,941,830          | \$ 889,677,218          |
| Wastewater Collection              |                    | \$ 714,095,238           | \$ 1,484,834         | \$ 21,376,105         | \$ 22,860,939         | \$ 691,234,299          |
| Wastewater Treatment & Disposal    | WW Treatment Plant | \$ 79,952,381            | \$ 4,488,038         | \$ 5,015,545          | \$ 9,503,583          | \$ 70,448,798           |
| Water Supply                       | Water Supply       | \$ 152,238,095           | \$ 4,105,579         | \$ 1,139,938          | \$ 5,245,517          | \$ 146,992,578          |
| Waterways & Land Drainage          | Stormwater         | \$ 110,619,048           | \$ -                 | \$ 11,400,000         | \$ 11,400,000         | \$ 99,219,048           |
| Works in Progress and set up costs |                    |                          | \$ 25,004,416        | \$ 130,283,977        | \$ 155,288,393        | -\$ 155,288,393         |
| <b>TOTAL</b>                       |                    | <b>\$ 2,015,238,095</b>  | <b>\$ 38,458,955</b> | <b>\$ 171,562,612</b> | <b>\$ 210,021,567</b> | <b>\$ 1,805,216,528</b> |

## 5. SCIRT WORK ACTIVITY

### 5.1. 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. It is anticipated that this achievement report will be included in each monthly report.

The information collection process and the key metrics are still being developed in conjunction with SCIRT and the three Client organisations and so will be refined over the next few months.

| Asset Type          | Asset Sub-Type  | Unit | SCIRT# | SCIRT Name                             | November | December | January | Grand Total |
|---------------------|-----------------|------|--------|--|----------|----------|---------|-------------|
| Transport - Roading | Pavement        | m2   |        |  | 1,175    | 8,920    | 168     | 10,263      |
|                     | Retaining Walls | %    | 10424  | Sumner Rd Retaining Wall L             |          |          | 3%      | 3%          |
|                     |                 |      | 10445  | Fitzgerald Ave Wall and Roading        | 33%      | 17%      | 20%     | 70%         |
|                     |                 |      | 10763  | Monks Bay Walkway - Temp Repairs       |          | 95%      |         | 95%         |
|                     |                 |      | 10822  | McCormacks Bay Reservoir Stage 2 Walls |          |          | 5%      | 5%          |

| Asset Type                | Asset Sub-Type | Unit | SCIRT# | SCIRT Name                     | November | December | January | Grand Total |
|---------------------------|----------------|------|--------|--------------------------------|----------|----------|---------|-------------|
| Waste Water Pump Stations | Pump Station   | %    | 10361  | PS54 Catchment Temp. Solutions |          |          | 60%     | 60%         |
|                           |                |      | 10728  | Rowan Ave Emergency Work WW    | 30%      |          |         | 30%         |

| Asset Type               | Asset Sub-Type  | Unit | SCIRT# | SCIRT Name | November     | December     | January      | Grand Total  |
|--------------------------|-----------------|------|--------|------------|--------------|--------------|--------------|--------------|
| Waste Water Reticulation | Gravity         | m    |        |            | 717          | 1,926        | 1,648        | 4,291        |
|                          | Pressure System | m    |        |            | 456          | 610          | 535          | 1,601        |
|                          |                 |      |        |            | <b>1,173</b> | <b>2,536</b> | <b>2,183</b> | <b>5,892</b> |

| Asset Type                             | Asset Sub-Type | Unit | SCIRT# | SCIRT Name                      | November | December | January | Grand Total |
|--|----------------|------|--------|---------------------------------|----------|----------|---------|-------------|
| Water Supply Pump & Reservoir Stations | Pump Station   | %    | 10361  | PS54 Catchment Temp. Solutions  |          |          | 35%     | 35%         |
|  |                |      | 10597  | Huntsbury Reservoir             | 20%      |          |         | 20%         |
|  | Reservoir      | %    | 10411  | Clifton Reservoir 3             | 30%      | 4%       |         | 34%         |
|  |                |      | 10417  | Upper Balmoral Reservoir        | 5%       | 17%      |         | 22%         |
|  |                |      | 10597  | Huntsbury Reservoir             | 25%      | 12%      |         | 37%         |
|  |                |      | 10607  | PM 37                           |          | 2%       |         | 2%          |
|  |                |      | 10612  | McCormacks Bay Reservoir No 2-2 | 28%      | 1%       |         | 29%         |
|  |                |      |        |                                 |          |          |         |             |
|  |                |      |        |                                 |          |          |         |             |
|  |                |      |        |                                 |          |          |         |             |
|  |                |      |        |                                 |          |          |         |             |

| Asset Type                | Asset Sub-Type | Unit | SCIRT# | SCIRT Name | November     | December     | January    | Grand Total  |
|---------------------------|----------------|------|--------|------------|--------------|--------------|------------|--------------|
| Water Supply Reticulation | Mains          | m    |        |            | 3,284        | 1,334        | 563        | 5,181        |
|                           | Pipes          | m    |        |            | 2,063        | 675          | 64         | 2,802        |
|                           |                |      |        |            | <b>5,347</b> | <b>2,009</b> | <b>627</b> | <b>7,983</b> |

## 5.2. Number of Ongoing SCIRT Projects

The following table is a summary of the programme pipeline as at 31<sup>st</sup> January 2012. It shows how many projects and the total value at each stage of the project lifecycle.

| Project Lifecycle Stage          | Estimate   | Estimated Cost       |
|----------------------------------|------------|----------------------|
| Investigation (Asset Assessment) | 12         | \$16,436,000         |
| Concept Design                   | 64         | \$213,159,116        |
| Detailed Design                  | 68         | \$157,091,431        |
| Construction                     | 65         | \$53,095,961         |
| Handover                         | 132        | \$48,359,116         |
| <b>Grand Total</b>               | <b>341</b> | <b>\$488,141,624</b> |

### 5.3. ONGOING SCIRT PROJECTS BY WARD

#### 5.3.1 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 January 2012.

#### 5.3.2. Burwood / Pegasus- in Detailed Design

| Reference | Project                   | Project Description  |
|-----------|---------------------------|--|
| 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.  |
| 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 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. |

| Reference | Project   | Project Description  |
|-----------|---|--|
| 10553     | Avondale Road (Bridge Works)                                  | Retrofit repair to bridge involving new abutments, piles, wing walls and associated road approaches and services.  |
| 10557     | Gayhurst Road Roding (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 Roding, Storm Water and Water Supply. This work follows wastewater repairs/replacement. |
| 10626     | Bridge Street Watermains (WS)                                 | Watermain renewal in Bridge Street; from Bridge to Estuary Road.   |
| 10651     | Keyes Rd Watermain (WS)                                       | Watermain renewal in Keyes Road between Pratt Street and Hawke Street.   |
| 10684     | Gresham Terrace Watermain and Submains                        | Watermain renewal between Keyes Road and Baker Street.   |
| 10707     | Breezes Rd Watermain  | Watermain renewal in Breezes Road between Pages Road and Doreen Street.  |
| 10724     | Bridge St bridge and approaches                               | Replace damaged bridge abutments and approaches with new structure including road works and services reinstatement.  |
| 10796     | NZTA Anzac Bridge Repairs                                     | Ground improvements, removal of landward bridge spans, demolish and rebuild abutments, repair piers, approaches and underpasses  |
| 10803     | PS54 Stage 1 Southern Roding 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.  |
| 10819     | Keyes Road Catchment (RD,SW)                                  | Repair and reinstatement of roads and underground services (excluding wastewater).   |

### **Burwood / Pegasus- in Construction**

| Reference | Project                        | Project Description  | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|--------------------------------|--|------------------------------|-------------------------------|-----------------------------|--------------|
| 10312     | Rowes/Tomrich Street Watermain | Replacement of water mains within two minor suburban streets in north Bromley. | 7/02/12                      | 05/04/2012                    | \$263,863                   | \$ -         |
| 10316     | Woodham Rd WW Emergency Repair | Renewal of approx. 100m of trunk sewer in Woodham Rd just before the PS1 Pump  | 16/12/11                     | 11/10/2012                    | \$2,500,000                 | \$ -         |

| Reference | Project  | Project Description  | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|--|--|------------------------------|-------------------------------|-----------------------------|--------------|
|           |  | Station.   |                              |                               |                             |              |
| 10335     | PS54 - Catchment   | A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.   | 30/05/11                     | 30/04/2012                    | \$10,893,000                | \$3,669,245  |
| 10349     | PS39 - Birchfield Avenue WW Emergency Works                  | Emergency Works at the waste water pumping station in Dallington.  | 13/10/11                     | 13/08/2012                    | \$129,500                   | \$41,880     |
| 10363     | PS108 Catchment (old PS39 Catchment)                         | A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.   | 14/11/11                     | 06/07/2012                    | \$5,187,910                 | \$769,849    |
| 10421     | Estuary Rd Carriageway, PS37 to Bridge Street Catchment (WW) | Estuary Road from Beatty Street to Bridge Street is undergoing the installation of a new deep gravity sewer main. Installation is required as a result of extensive earthquake damage on the existing main, allowing infiltration. | 26/09/11                     | 07/03/2012                    | \$2,110,000                 | \$408,427    |
| 10532     | Cnr Pages & Cuff - Emergency Repair                          | A large waste water renewal to a section of gravity pipe in Pages Rd.  | 30/01/12                     | 26/04/2012                    | \$945,238                   | \$3,298      |
| 10576     | PM106 - Woolley  | A small simple sewer pressure main being constructed in Woolley St to service a modified sewer catchment in Avondale.  | 23/12/11                     | 26/01/2012                    | \$124,770                   | \$ -         |
| 10607     | PM 37  | Installing a new PE pressure main from PS37 to Mountbatten Street due to concrete pressure main being damaged beyond repair.   | 3/08/11                      | 26/01/2012                    | \$1,372,710                 | \$1,910,816  |
| 10647     | Travis Rd watermains and submains                            | Travis Road from Blue Gum Place to Bower Ave roundabout requires the replacement of the watermain in the carriageway and the submains on the footpath. The work will be completed by directional drilling. The replacements are    | 13/09/11                     | 07/12/2011                    | \$160,000                   | \$214,862    |

| Reference | Project                                 | Project Description  | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|---|--|------------------------------|-------------------------------|-----------------------------|--------------|
|           |   | required due to the existing mains being extensively damaged by the recent earthquakes.  |                              |                               |                             |              |
| 10649     | Corhampton St watermains and submains   | Corhampton Street from Porchester to Winchfield Street, including Netley Place will be undergoing the replacement of watermains and submains. This work requires work to be completed with an open trench. Existing mains damaged beyond repair. | 10/10/11                     | 20/12/2011                    | \$317,412                   | \$203,087    |
| 10683     | Cowes St Watermain and Submains (WS)    | Repair or replacement of water supply assets in a single street in Avondale.   | 9/09/11                      | 19/12/2011                    | \$218,019                   | \$201,746    |
| 10685     | Inverell Pl Watermain and Submains (WS) | Watermain renewal in Inverell Place.   | 24/11/11                     | 21/12/2011                    | \$104,004                   | \$56,115     |
| 10686     | Orrick St Watermain and Submains (WS)   | Repair or replacement of water supply assets in a single street in Avondale.   | 28/11/11                     | 13/02/2012                    | \$204,841                   | \$50,508     |
| 10690     | Bassett St Watermain (WS)               | The watermain running along Bassett Street between Travis Road and Reginald Street requires replacement due to the extensive damage that it has suffered in the recent earthquakes. Work will be completed by utilising an open trench.          | 23/08/11                     | 23/11/2011                    | \$120,000                   | \$17,355     |
| 10691     | Falcon St Watermain                     | The watermain running along Falcon Street between Estuary Road and Kibblewhite Street requires replacement due to the extensive damage that it has suffered in the recent earthquakes. Work will be completed by utilising an open trench.       | 14/11/11                     | 16/12/2011                    | \$139,687                   | \$284,562    |
| 10706     | Bowhill Watermain (WS)                  | Replacement of the existing 150mm dia  | 16/01/12                     | 31/01/2012                    | \$105,306                   | \$64,851     |



| Reference | Project  | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|--|---|------------------------------|-------------------------------|-----------------------------|--------------|
|           |  | AC watermain in Bowhill Road with a 180 mm diameter PE pipe, between Grantley Street and Keyes Road. The work also includes connections to existing watermains and the removal of redundant fittings. |                              |                               |                             |              |
| 10708     | Rookwood Ave Watermain                         | Repair or replacement of water supply assets along a main road in North New Brighton.   | 7/11/11                      | 14/02/2012                    | \$322,545                   | \$57,891     |
| 10723     | Merrington Cres Watermain                      | Watermain renewal along Merrington Crescent (full length).  | 4/11/11                      | 23/12/2011                    | \$326,344                   | \$102,562    |
| 10789     | Woodham Road Water Supply Pumping Line Renewal | A small watermain replacement in Wainoni.   | 27/01/12                     | 02/03/2012                    | \$106,585                   | \$34,930     |

### 5.3.3. Fendalton / Waimairi- in Detailed Design

| Reference | Project                                      | Project Description  |
|-----------|--|--|
| 10480     | R126 Monavale Footbridge                     | Minor structural repair works  |
| 10485     | Merivale WW                                  | Approximately 9km of WW gravity system, one new pump station.  |
| 10575     | Papanui Rd - Knowles to May (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. The seismic events caused some liquefaction and land settlement in parts of the sub-catchment. Much of the network is made up of Earthenware pipe laid during the 1920's and 1930's. Much 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 repaired or replaced. |
| 10804     | Papanui Road Emergency Road & Culvert Repair | Small scale urgent repair of collapsed culvert and road damage on Papanui Road.  |

### Fendalton / Waimairi- in Construction

| Reference | Project                            | Project Description                         | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|------------------------------------|---|------------------------------|-------------------------------|-----------------------------|--------------|
| 10590     | Thornycroft Street – Priority 4 WM | A small watermain replacement in Fendalton. | 10/01/12                     | 29/02/2012                    | \$142,336                   | \$6,758      |

#### 5.3.4. Central City- in Detailed Design

The Central City is a metropolitan area and has been set up as a new 'ward' to be reported on separately from the Hagley/Ferrymead ward it sits within. The boundary is the central city, inclusive of the four avenues.

| Reference | Project                             | Project Description   |
|-----------|-------------------------------------|---|
| 10482     | Triumphal Arch - Temporary Propping | Temporary bracing to arch to support the structure and to allow safe access for permanent repair works. In CBD, Heritage structure. |

#### Central City- in Construction

| Reference | Project                          | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|----------------------------------|---|------------------------------|-------------------------------|-----------------------------|--------------|
| 10445     | Fitzgerald Ave Wall and Roothing | The works include the replacement of a failed Retaining Wall and carriageway. Ground stabilization is also being installed with stone columns 12 meters deep. | 9/09/11                      | 18/05/2012                    | \$3,130,000                 | \$2,300,095  |

### 5.3.5. Hagley / Ferrymead- in Detailed Design (\*excludes central city)

| Reference | Project  | Project Description  |
|-----------|--|--|
| 10303     | Site 229 Mt Pleasant Rd Retaining Wall   | 60m replacement Retaining Wall and road reinstatement, in Mt Pleasant  |
| 10306     | PM11 Randolph  | 3.6km, 1.2m dia WW pressure main   |
| 10307     | 173 Maffey's Road Retaining Wall   | Repair of Retaining Wall in Maffey's Rd, along with associated buried services   |
| 10347     | Gayhurst Rd (Bridge Works – Emergency Works)                                     | Retrofit repair to bridge involving new abutments, piles, wing walls and associated road approaches and services.  |
| 10428     | Retaining Wall Mt Pleasant Rd Wall #156  | 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  |
| 10548     | Gloucester Street  | Design for Wastewater, Stormwater, Water & Roading along Gloucester Street between Woodham Road and Avonside Drive. Close to complete replacement of all WW and Roading assets. Stormwater is reasonably intact. |
| 10578     | PS107  | Minor new pump station.  |
| 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.   |
| 10666     | Head Street - Esplanade to Nayland (WS)  | Watermain renewal in Keyes Road between Esplanade and Nayland.   |
| 10679     | Moncks Spur No. 3  | Repair and retrofit of reservoir.  |
| 10680     | Clifton No. 4 Reservoir  | Repair and retrofit of reservoir.  |
| 10770     | 10770 Linwood Ave / Humphreys Drive Retaining Wall Emergency (Permanent) Repairs | 8m replacement and 8m extension of Retaining Wall at the City outfall drain to the estuary   |
| 10797     | NZTA Heathcote/Opawa Bridge Repairs  | Ground improvements, and underpinning and lifting (jacking) of the abutments   |
| 10798     | NZTA Port Hills Overpass Bridges   | Pier column refinement, subject to ground investigation results  |
| 10799     | NZTA Horotane Overpass Bridges   | Propping system between piers, subject to ground investigation results   |
| 10820     | McCormacks Bay Reservoir Stages 3,4 and 5  | Tank 1 and 2 and access reinstatement.   |
| 10822     | McCormacks Bay Reservoir Stage 2 Walls   | Retaining Walls and rock fall protection works at reservoir site.  |

**Hagley / Ferrymead- in Construction** (\*excludes central city)

| Reference | Project   | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|---|---|------------------------------|-------------------------------|-----------------------------|--------------|
| 10326     | Retreat Road                                    | A small diameter waste water renewal project along Retreat Rd in Dallington.  | 4/07/11                      | 01/12/2011                    | \$585,000                   | \$600,001    |
| 10339     | Woodham Road (Temporary Repairs)                | A large complex repair to a sewer trunk main in Woodham Rd.   | 15/09/11                     | 18/05/2012                    | \$2,000,000                 | \$2,996,994  |
| 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 diversion is required for this work to be completed safely. | 14/11/11                     | 24/05/2012                    | \$3,049,444                 | \$737,737    |
| 10358     | PS57 - McCormacks Bay Rd Sewer Overflow Renewal | A small repair to an important gravity waste water overflow from a pump station in McCormacks Bay.  | 30/11/11                     | 23/12/2011                    | \$124,548                   | \$115,746    |
| 10386     | St Andrews Hill Rd Sewer (Major Hornbrook)      | Emergency repair of stormwater and ww sewer lines between manhole and 22394 and 22393.  | 11/01/12                     | 02/02/2012                    | \$65,380                    | \$ -         |
| 10388     | Richardson Clarendon Syphon                     | The extent of this work for this work package is the replacement of the 144 Richardson Terrace / 121  | 16/11/11                     | 07/03/2012                    | \$473,489                   | \$ -         |
| 10403     | Barbour St Water (WS)                           | Replacement of water mains in two streets to the south and east of AMI Stadium, Waltham.  | 30/01/12                     | 27/02/2012                    | \$174,742                   | \$ -         |
| 10411     | Clifton Reservoir 3                             | Work is undertaken to prop the roof, fibre wrap and repair the column, jack up roof, reseal all floor joints. A new concrete beam at wall/roof junction, fabric roof  | 28/09/11                     | 22/12/2011                    | \$227,000                   | \$302,981    |

| Reference | Project                            | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|------------------------------------|---|------------------------------|-------------------------------|-----------------------------|--------------|
|           |                                    | ceremony.   |                              |                               |                             |              |
| 10417     | Upper Balmoral Reservoir           | Upgrading reservoir to 100% of code; fibre wrap column, new internal concrete beam to the wall and external beam at wall roof junction, fabric roof.                                  | 5/09/11                      | 05/12/2011                    | \$309,000                   | \$336,425    |
| 10422     | PM 31 Renewal Works                | Between 8 and 202 Main Road, Redcliffs a Sewer Gravity Main renewal is required due to the existing main suffering extensive damage.  | 13/10/11                     | 27/02/2012                    | \$939,748                   | \$785,019    |
| 10434     | PS12 Smith                         | Minor pump station repairs.   | 23/12/11                     | 17/02/2012                    | \$15,000                    | \$3,223      |
| 10442     | PS15 Gould Cres Overflow Structure | The overflow for Pump Station 15 was removed after collapsing in Feb quake. This work is replacing the structure in a new location of Gould Cres.                                     | 4/11/11                      | 16/12/2011                    | \$203,962                   | \$204,863    |
| 10478     | F805 McCormacks Bay 1 Footbridge   | Minor repairs to a footbridge in McCormacks Bay below Mt Pleasant.  | 13/12/11                     | 30/01/2012                    | \$30,000                    | \$ -         |
| 10479     | F806 McCormacks Bay 2 Footbridge   | Minor repairs to a footbridge in McCormacks Bay below Mt Pleasant.  | 29/11/11                     | 19/12/2011                    | \$10,000                    | \$ -         |
| 10481     | R223 Heathcote Barrage             | Minor make safe works at flood gates on Heathcote River.  | 30/01/12                     | 20/02/2012                    | \$10,000                    | \$ -         |
| 10496     | PS13 Tilford                       | Minor pump station repairs.   | 20/12/11                     | 16/01/2012                    | \$5,000                     | \$ -         |
| 10497     | PS10 Linwood WW                    | Minor pump station repairs.   | 13/12/11                     | 16/01/2012                    | \$20,000                    | \$ -         |
| 10537     | Patten Street                      | A small diameter waste water renewal project along Patten St in Linwood.  | 20/01/12                     | 09/05/2012                    | \$707,722                   | \$40         |
| 10586     | PM107                              |   | 1/02/12                      | 07/03/2012                    | \$325,825                   | \$ -         |
| 10612     | McCormacks Bay Reservoir No 2-2    | 54 Glenstrae Road, earthquake in February damaged 5000m3 reservoir, existing floor cracked and tank leaked. Upgrading reservoir to 67% of code by installing new floor and ring beam. | 20/12/11                     | 06/08/2012                    | \$6,600,000                 | \$538,134    |

| Reference | Project  | Project Description  | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|--|--|------------------------------|-------------------------------|-----------------------------|--------------|
| 10677     | Beachville Watermain (WS)                              | Replacement of 670m watermain in Beachville Road, between 86 Beachville Road and the corner of Beachville Road and Main Road.  | 31/10/11                     | 12/12/2011                    | \$335,368                   | \$223,756    |
| 10687     | Wakefield Ave Watermain (WS)                           | Watermain renewal along Wakefield Avenue, Sumner, between Colenso Street and Arnold Street.  | 12/12/11                     | 27/01/2012                    | \$76,824                    | \$10,833     |
| 10729     | WW, Gravity Bridal Path and Cannon                     | Replace sewer.   | 13/01/12                     | 17/02/2012                    | \$163,444                   | \$191,527    |
| 10739     | Heberden Ave Temporary Solution (WW)                   | Provision of a temporary solution to service the Scarborough Hill/Taylor's Mistake catchment by intercepting flow in Seaspray Lane and taking it to Head Street, Sumner, to prevent discharge to environment.                        | 25/10/11                     | 20/12/2011                    | \$50,000                    | \$97,178     |
| 10763     | Monks Bay Walkway - Temp Repairs                       | Located at Moncks Bay/Main Road, existing rock cliff damaged and containers installed as protection which removed safe footpath for walkers. Temporary safety repairs to provide a footpath for pedestrians along estuary foreshore. | 18/11/11                     | 19/01/2012                    | \$30,000                    | \$29,983     |
| 10779     | Linwood Avenue Water Main                              | These works include the replacement of a 300mm water main from the pump station at St Johns and Linwood Ave to the intersection of Keighleys and Linwood Ave.  | 30/01/12                     | 12/03/2012                    | \$445,336                   | \$307,804    |
| 10782     | 15 Dunoon Place Emergency Stabilisation / Sewer Repair | Collapsed sewer main on private lateral  | 12/12/11                     | 20/02/2012                    | \$100,000                   | \$128,776    |
| 10792     | Truro Street Emergency                                 | Repair of wastewater pipeline through  | 16/01/12                     | 11/04/2012                    | \$264,929                   | \$6,177      |

| Reference | Project                                     | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|---|-----------------------|------------------------------|-------------------------------|-----------------------------|--------------|
|           | Waste Water Sewer Renewal (Van Asch School) | Van Ash School Sumner |                              |                               |                             |              |



### 5.3.6. Lyttelton / Mt Herbert- in Detailed Design

| Reference | Project  | Project Description   |
|-----------|--|---|
| 10394     | Retaining Wall Package 05 - Canterbury Stone Walls | 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.   |
| 10399     | Retaining Wall Package 07 - Lyttelton Stone        | Design three replacement Retaining Walls on London Street, St Davids Street and Ticehurst Road, Lyttelton. The walls are up to 4m high and are of high heritage value. Two of these walls (London Street and St Davids Street) are located within the 'white zone'. |
| 10400     | Retaining Wall Package 08 - Lyttelton non-stone    | 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'.           |
| 10427     | 035 Cunningham Tce Retaining Wall                  | Repair of Retaining Wall in Cunningham Tce, along with associated buried services   |
| 10511     | Retaining Wall Package 06 - Selwyn and Ross        | Design five Retaining Walls on Selwyn Street and Ross Terrace, Lyttelton. The walls range in height from 1.5m to 3m, and are of high heritage value. These walls are currently located within the 'white zone'.   |

### Lyttelton / Mt Herbert- in Construction

| Reference | Project                                     | Project Description                                    | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|---|--|------------------------------|-------------------------------|-----------------------------|--------------|
| 10636     | Priority Roads - Governors Bay Road Rebuild | Make safe, Road patching job along Governors Bay Road. | 26/01/12                     | 08/03/2012                    | \$182,633                   | \$ -         |

### 5.3.7. Riccarton / Wigram- in Detailed Design

| Reference | Project                | Project Description   |
|-----------|------------------------|---|
| 10409     | Halswell WW Package 03 | Repair wastewater along a section of Halswell Rd, O'Halloran Dr, & within private properties behind Muir Ave. |

### Riccarton / Wigram- in Construction

| Reference | Project                                   | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|---|---|------------------------------|-------------------------------|-----------------------------|--------------|
| 10309     | Halswell Minor Roothing Works - All Areas | This project covers a range of emergency works on roading in Halswell area.   | 16/01/12                     | 19/03/2012                    | \$547,000                   | \$160,189    |
| 10392     | Halswell WW Package 1 (WW)                | Combination of 3 work packages. Includes Birchdale, Ell, Saby's, Noble, Muir and O`Halloran Roads   | 30/11/11                     | 09/02/2012                    | \$1,699,206                 | \$1,867,699  |
| 10408     | Glovers St water (WS)                     | The works consist of the replacement of approximately 665 m of existing 100 mm AC water main in Glovers Road and Halswell Road with 125 mm PE100 PN12.5 pipe. | 4/04/12                      | 18/05/2012                    | \$329,331                   | \$ -         |

### 5.3.8. Shirley / Papanui- in Detailed Design

| Reference | Project                                    | Project Description  |
|-----------|--|--|
| 10313     | PM6 - Harrison St                          | Renewal of 6 inch AC pressure main with new PE pressure main.  |
| 10457     | Purchas & Madras (Bealey - Edgeware)       | WW, SW and roading repairs. Includes traffic calming on Purchas St to conform with IDS and City Plan requirements for Local Road widths.   |
| 10810     | PS7 Catchment Phase 1 Waste Water Renewal  | Covers the wastewater component of phase two of the pump station 108 catchment. Phase two is broken up into two catchments: East and West. The Phase Two East catchment is loosely bounded by McBratneys Rd, Halberg St and in places Landy St. The Phase Two West catchment includes the part of McBratneys Rd west of Gayhurst Rd, Banks Ave south of Coopers Rd, Belfield St, Bramwell St and Westcott St. Both the East and West catchments will each have new smaller pump stations constructed that will pump into pump station 108. |
| 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)   |
| 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)   |
| 10816     | PS7 Catchment Phase 4 Waste Water Renewals | 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 4 of 4, central/western quarter of catchment)   |
| 10313     | PM6 - Harrison St                          | Renewal of 6 inch AC pressure main with new PE pressure main.  |
| 10457     | Purchas & Madras (Bealey - Edgeware)       | WW, SW and roading repairs. Includes traffic calming on Purchas St to conform with IDS and City Plan requirements for Local Road widths.   |
| 10810     | PS7 Catchment Phase 1 Waste Water Renewal  | Covers the wastewater component of phase two of the pump station 108 catchment. Phase two is broken up into two catchments: East and West. The Phase Two East catchment is loosely bounded by McBratneys Rd, Halberg St and in places Landy St. The Phase Two West catchment includes the part of McBratneys Rd west of Gayhurst Rd, Banks Ave south of Coopers Rd, Belfield St, Bramwell St and Westcott St. Both the East and West catchments will each  |

| Reference | Project                                    | Project Description  |
|-----------|--|--|
|           |  | have new smaller pump stations constructed that will pump into pump station 108.   |
| 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)         |
| 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)   |
| 10816     | PS7 Catchment Phase 4 Waste Water Renewals | 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 4 of 4, central/western quarter of catchment) |

### Shirley / Papanui- in Construction

| Reference | Project                           | Project Description  | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|-----------------------------------|--|------------------------------|-------------------------------|-----------------------------|--------------|
| 10344     | Edgeware Road - Emergency Works   | A large complex repair to a sewer trunk main in Edgeware Rd.               | 13/10/11                     | 23/12/2011                    | \$1,734,794                 | \$889,528    |
| 10555     | Madras Street / Forfar Wastewater | A small diameter waste water renewal project along Madras St in St Albans. | 23/11/11                     | 15/02/2012                    | \$553,003                   | \$388,417    |

### 5.3.9. Spreydon / Heathcote- in Detailed Design

| Reference | Project   | Project Description  |
|-----------|---|--|
| 10310     | Milton St / Frankleigh St Arterial Road Repairs | Repair of road and all buried services along Milton and Frankleigh Streets, including the section of Lyttelton either side of the intersection |
| 10311     | Antigua St / Burke St Arterial Road Repairs     | Repair of road and all buried services along Antigua St (between Moorehouse & Brougham) and Burke St (between Selwyn & Montreal)               |
| 10379     | Fisher Ave & Eastern Tce Syphon                 | Repair of Syphon near Fisher Ave   |
| 10385     | Bewdley Evesham and Dellow                      | Repair of road and all buried services along Bewdley St, Eversham Cres & Dellow Pl.  |
| 10410     | Hollis Ave WW                                   | Repair of wastewater along a section of Holliss Ave between Gunns Cres & Centaurus Rd.   |
| 10476     | F207 Aynsley Tce Footbridge                     | Minor structural repair works  |
| 10717     | Colombo St Bridge                               | Repairs to the bridge across the Heathcote at the south end of Colombo Street.   |
| 10821     | Huntsbury Reservoir Tank No 2 & demolition      | New reservoir tank (no.2) constructed in NE corner of old reservoir.   |

### Spreydon / Heathcote- in Construction

| Reference | Project  | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|--|---|------------------------------|-------------------------------|-----------------------------|--------------|
| 10319     | 10319 St Martins Package 01- Project Allocation Construction | Replacement renewal and repair of selected wastewater mains and laterals along partial extents of Wilsons Road South, St Martins Road and Gamblins Road in the St Martins suburb. | 5/12/11                      | 30/03/2012                    | \$957,480                   | \$469,118    |
| 10320     | Murray Aynsley Reservoir 2                                   | Repairs to the roof and repair of spalled concrete at the reservoir, and associated repairs to the watermain at the site.   | 8/08/11                      | 07/11/2011                    | \$150,000                   | \$147,994    |

| Reference | Project  | Project Description   | Estimated Construction Start | Estimated Construction Finish | Estimated Construction Cost | Life To Date |
|-----------|--|---|------------------------------|-------------------------------|-----------------------------|--------------|
| 10397     | Glenelg Spur 01  | Repair of road and all buried services in a group of streets near Somerfield.<br>Replacement of ww line from Glenelg spur to Centaurus Rd.  | 10/01/12                     | 28/02/2012                    | \$103,236                   | \$ -         |
| 10404     | Hollis Ave Water (WS)  | The works consist of the replacement of approximately 330 m of existing 100 mm AC water main in Holliss Avenue with 125 mm PE100 PN16 pipe. | 2/07/12                      | 27/07/2012                    | \$135,869                   | \$ -         |
| 10432     | PS19 Beckford  | Minor pump station repairs.   | 13/12/11                     | 07/02/2012                    | \$3,000                     | \$ -         |
| 10433     | PS20 Locarno   | Minor pump station repairs.   | 9/12/11                      | 10/02/2012                    | \$20,000                    | \$30,111     |
| 10477     | F212 Sloan Tce Footbridge  | Corbel addition to pre cast concrete span bridge.   | 27/01/12                     | 17/02/2012                    | \$24,229                    | \$ -         |
| 10787     | Rydal Street Water Supply, Storm Water and Roothing Renewals (SW,WS, RD) | Replacement of water and storm water supply along Rydal St and respective roading renewals.   | 16/01/12                     | 17/04/2012                    | \$375,349                   | \$27,693     |

## 5.4. PROJECTS COMPLETE BY WARD

The following section outlines projects within each ward that have been completed since SCIRT was established on 1<sup>st</sup> 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                 | Number of Projects | Project Cost        |
|----------------------|--------------------|---------------------|
| Burwood-Pegasus      | 62                 | \$12,834,331        |
| Fendalton-Waimairi   | 1                  | \$53,551            |
| Central City         | 5                  | \$177,543           |
| Hagley-Ferrymead     | 36                 | \$6,697,694         |
| Lyttelton-Mt Herbert | 4                  | \$38,936            |
| Riccarton-Wigram     | 3                  | \$2,197,846         |
| Shirley-Papanui      | 14                 | \$2,722,403         |
| Spreydon-Heathcote   | 7                  | \$5,203,951         |
| <b>Grand Total</b>   | <b>132</b>         | <b>\$29,926,256</b> |

### 5.4.1. List of Projects Complete by Ward

| Ward                   | Reference | Project  | Project Cost |
|------------------------|-----------|--|--------------|
| <b>Burwood-Pegasus</b> | 10321     | PM51 Emergency Repair                                  | \$ -         |
|                        | 10325     | Cresswell Avenue - Watermains                          | \$148,362    |
|                        | 10327     | Pembroke Street  | \$146,277    |
|                        | 10328     | De Ville Place   | \$102,790    |
|                        | 10331     | PM39 - Gayhurst Rd                                     | \$1,512,493  |
|                        | 10332     | PM54 - Niven-Avonside                                  | \$372,066    |
|                        | 10338     | Wainoni Road (WW Emergency Works - Ottawa to Avonside) | \$910,047    |
|                        | 10340     | Ottawa Road Sewer Emergency Repair                     | \$ 517,444   |
|                        | 10342     | Avondale Road (Bridge Emergency Works)                 | \$ -         |
|                        | 10343     | PM16 - Oakmont Green                                   | \$4,287      |
|                        | 10346     | Fleete Street - Emergency Repair                       | \$9,243      |
|                        | 10351     | Ardrossan Street - Temp. Solution                      | \$347,571    |
|                        | 10355     | Landy Street   | \$14,733     |
|                        | 10359     | PS54 - Niven St  | \$62,282     |
|                        | 10364     | Shortland Street                                       | \$342,893    |
|                        | 10366     | McBratneys Road - WM                                   | \$ -         |
|                        | 10376     | PM28   | \$1,496,219  |
|                        | 10384     | Pacific_Tedder Watermain Replacement                   | \$523,816    |

| Ward | Reference | Project  | Project Cost |
|------|-----------|--|--------------|
|      | 10440     | PS 25  | \$4,752      |
|      | 10443     | PM38_Beach Rd  | \$585,010    |
|      | 10484     | Pump Station 25 connection repair                    | \$ 8,977     |
|      | 10551     | Avondale Rd (Temp Repair)                            | \$ -         |
|      | 10604     | PM 45  | \$316,058    |
|      | 10605     | Sylvia Street watermain                              | \$140,884    |
|      | 10606     | Chadlington Street Water Mains                       | \$43,203     |
|      | 10608     | PM 35  | \$1,076,737  |
|      | 10614     | Aldershot Street watermain (WS)                      | \$252,262    |
|      | 10615     | Willryan Avenue Watermain                            | \$284,876    |
|      | 10616     | Flemington and Ascot Ave Watermains                  | \$518,666    |
|      | 10617     | PM46   | \$ -         |
|      | 10621     | Chartwell Street Water Mains                         | \$381,866    |
|      | 10638     | 630 Pages Road 450mm WW                              | \$1,040      |
|      | 10639     | 23 Leaver Tce WW                                     | \$62,858     |
|      | 10640     | 153 Beach RD WW                                      | \$ -         |
|      | 10641     | Kirner St WW   | \$21,896     |
|      | 10642     | Cygnat St WW   | \$ -         |
|      | 10645     | Inwoods Close 450mm WW                               | \$155,767    |
|      | 10650     | Water Main on Bridge Street Bridge (WS)              | \$2,571      |
|      | 10664     | Saltaire (Bower to Marriots Rd) - WS                 | \$62,000     |
|      | 10665     | Sinclair (Keyes to Rawson) - WS                      | \$190,262    |
|      | 10669     | Palmer's Rd PS Stabilisation                         | \$ 16,812    |
|      | 10670     | Major flooding Pratt St.                             | \$296,942    |
|      | 10671     | Owles Tce Temp. (WW)                                 | \$123,187    |
|      | 10676     | Marine Parade Watermain                              | \$ 175,651   |
|      | 10682     | Briarmont St watermain                               | \$104,559    |
|      | 10688     | Blake St Watermain (WS)                              | \$296,775    |
|      | 10689     | Pegasus Ave Watermain                                | \$262,251    |
|      | 10692     | Beach Rd Watermain                                   | \$ 132,569   |
|      | 10695     | Allstone Watermain                                   | \$95,911     |
|      | 10696     | Marriotts Road Watermain                             | \$33,968     |
|      | 10700     | Hulverstone Drive Emergency Repair                   | \$21,482     |
|      | 10702     | Rawhiti Water Well Stormwater Outfall                | \$158,364    |
|      | 10711     | Waitaki St Temp. Sewer                               | \$ -         |
|      | 10713     | Chartwell St Wastewater                              | \$ -         |
|      | 10714     | Kate Sheppard emergency repair (Barkers Ln Temp. WW) | \$119,456    |
|      | 10728     | Rowan Ave Emergency Work WW                          | \$194,874    |
|      | 10744     | PS 36 Gravity Main (Pages Rd)                        | \$ -         |
|      | 10749     | Beach Rd Gravity Sewer (WW)                          | \$67,291     |
|      | 10752     | Desalination plant long term storage                 | \$55,969     |



| Ward                      | Reference | Project  | Project Cost |
|---------------------------|-----------|--|--------------|
|                           | 10755     | PS19 Fifield - 171 Fifield (PS)                            | \$50,298     |
|                           | 10756     | PM39 Temp Overland Pipe (PM)                               | \$7,764      |
|                           | 10794     | Pratt Street (Keyes Road) Water Main from Pumping Station  | \$ -         |
| <b>Fendalton-Waimairi</b> | 10354     | Papanui Road - Emergency Work                              | \$53,551     |
| <b>Central City</b>       | 10447     | Fitzgerald Ave Temp Sewer replacement                      | \$23,775     |
|                           | 10455     | Fitzgerald Ave Twin Bridges Temp Repairs                   | \$ -         |
|                           | 10726     | Stormwater Pump Station 203                                | \$45,076     |
|                           | 10764     | PM3 Temporary Repair (Complex Emergency)                   | \$512        |
|                           | 10790     | Liverpool Street Water Main (CBD)                          | \$108,180    |
| <b>Hagley-Ferrymead</b>   | 10301     | Tanner Street Replacement Well (WS)                        | \$13,299     |
|                           | 10333     | PM57 - Replacement (Stage 2 March)                         | \$2,056,970  |
|                           | 10337     | Avonside - WW Trunk Sewer                                  | \$205,286    |
|                           | 10341     | River Road - Siphon (WW)                                   | \$477,832    |
|                           | 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                        | \$ 241,657   |
|                           | 10360     | Eveleyn Couzins Ave - Temp. Solutions                      | \$ -         |
|                           | 10362     | PS5 - Glade  | \$ -         |
|                           | 10372     | Dacre Street   | \$125,471    |
|                           | 10391     | Stevens St Watermain                                       | \$156,789    |
|                           | 10402     | Moorhouse SW BB 02   | \$72,121     |
|                           | 10406     | 226 Main Road SW   | \$ -         |
|                           | 10431     | PS15 Alport  | \$254,712    |
|                           | 10441     | Ferry Road_873   | \$175,034    |
|                           | 10448     | PM 12  | \$ -         |
|                           | 10451     | Manning-Ferry  | \$13,751     |
|                           | 10452     | WW No Service Grafton                                      | \$132,447    |
|                           | 10454     | 225 Linwood Ave  | \$63,990     |
|                           | 10458     | 31 Stanmore Road   | \$44,619     |
|                           | 10463     | Hamner Street - waste water relay                          | \$72,889     |
|                           | 10471     | 33 River Terrace   | \$38,939     |
|                           | 10473     | Wickham St Watermain replacement                           | \$291,663    |
|                           | 10499     | Saxon Street Waste Water                                   | \$29,777     |
|                           | 10505     | Stanmore Road Lateral                                      | \$ -         |
|                           | 10545     | PS19 - Syphon  | \$ -         |
|                           | 10609     | PM 47  | -\$41,140    |
|                           | 10613     | Mt Pleasant Reservoir 2/2                                  | \$95,484     |
|                           | 10618     | Beachville Road Pressure + Gravity Main                    | \$465,410    |
|                           | 10629     | McCormacks Bay Rd WR mains and                             | \$1,428,951  |

| Ward                        | Reference | Project   | Project Cost        |
|-----------------------------|-----------|---|---------------------|
|                             |           | submains  |                     |
|                             | 10644     | 55 Clark St WW  | \$908               |
|                             | 10734     | WW, 262 Main Road   | \$ -                |
|                             | 10743     | 281 River Rd Siphon (WW)  | \$ -                |
|                             | 10746     | Ruru Ave Repair PM 11   | \$13,904            |
|                             | 10747     | Bromley Waste Water Treatment   | \$83,925            |
|                             | 10753     | WW No Service Glendever (WW)  | \$3,411             |
| <b>Lyttelton-Mt Herbert</b> | 10382     | Lyttelton Treatment Plant Access  | \$ -                |
|                             | 10672     | Sutton Quay Retaining Wall 441  | \$38,936            |
|                             | 10732     | Flat land at base on hill along Main Road - WW                                  | \$ -                |
|                             | 10784     | Canterbury Street Retaining Wall - Emergency Temporary Support (Retaining Wall) | \$ -                |
| <b>Riccarton-Wigram</b>     | 10380     | Halswell WW Package 02  | \$1,992,799         |
|                             | 10387     | Townshend Crescent Wastewater   | \$42,977            |
|                             | 10389     | Sparks Rd Watermain   | \$162,069           |
| <b>Shirley-Papanui</b>      | 10322     | Ranfurly Street   | \$117,417           |
|                             | 10323     | Chrystal Street   | \$83,645            |
|                             | 10329     | Hope street   | \$139,221           |
|                             | 10330     | Orontes Street - WS   | \$84,898            |
|                             | 10334     | PM7 - Stapletons Rd   | \$231,474           |
|                             | 10345     | Nancy Ave / Weston Rd   | \$16,297            |
|                             | 10348     | Shirley Road - Wastewater (Emergency Repair)                                    | \$ -                |
|                             | 10369     | Orion Street  | \$38,764            |
|                             | 10437     | PM 40_Marshlands  | \$465,800           |
|                             | 10439     | Heyders_29-65_WW  | \$312,477           |
|                             | 10444     | PM25_Golf Links-North Pde   | \$590,509           |
|                             | 10446     | Brooklands Roding - Temporary Repairs   | \$339,678           |
|                             | 10460     | 449 Durham Street North   | \$295,030           |
|                             | 10748     | Madras / Purchas Emergency Repair   | \$7,194             |
| <b>Spreydon-Heathcote</b>   | 10308     | Riselaw Street  | \$86,327            |
|                             | 10381     | Rydal St (WW)   | \$875,956           |
|                             | 10390     | Centaurus Rd Watermain  | \$142,593           |
|                             | 10393     | Smartlea WW Emergency Repair  | \$107,251           |
|                             | 10396     | 75 Wilsons Emergency Repair   | \$ -                |
|                             | 10597     | Huntsbury Reservoir   | \$3,790,918         |
|                             | 10745     | Sydenham Stn Replace Wells  | \$200,907           |
| <b>Grand Total</b>          |           |   | <b>\$29,926,256</b> |

## 6. NON-SCIRT ACTIVITIES FOR THE MONTH

### 6.1 Introduction

The following section of the report includes 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. It is anticipated that these reports will be included on an ongoing basis.

### 6.2. Greenspace

| Ward                       | Work Package Number | Work Package Name                     | Description   | Number of Projects in Package | Phase         | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|----------------------------|---------------------|---------------------------------------|---|-------------------------------|---------------|------------------------------|-------------------------------|----------------|
| Lyttelton<br>Mt<br>Herbert | WP0000537           | PARKS Marine Structures Repairs       | Marine Structures Repairs   | 13                            | Investigation | 01/08/2011                   | 30/06/2012                    | \$462,000      |
|                            | WP0000551           | PARKS Marine Structures Assessments   | Marine Structures Assessments                                     | 10                            | Complete      | 01/08/2011                   | 30/11/2011                    | \$60,000       |
|                            | WP0000783           | B/P Retaining Walls                   | Retaining wall repairs in parks and cemeteries on Banks Peninsula | 4                             | Investigation |                              |                               | \$241,000      |
| Burwood<br>Pegasus         | WP0000251           | PARKS CEAF 1.1 Sth New Brighton CAPEX | Hard surface and playground under surfacing renewals              | 8                             | Construction  | 01/10/2011                   | 30/06/2012                    | \$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                            | Construction  | 01/10/2011                   | 29/02/2012                    | \$131,000      |
|                            | WP0000284           | PARKS CEAF 2.6 TRAVIS CAPEX           | Hard surface renewals   | 5                             | Construction  | 01/12/2011                   | 29/02/2012                    | \$175,500      |

| Ward                  | Work Package Number | Work Package Name                     | Description   | Number of Projects in Package | Phase         | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|-----------------------|---------------------|---------------------------------------|---|-------------------------------|---------------|------------------------------|-------------------------------|----------------|
|                       | WP0000285           | PARKS CEAF 2.7 AVON PARK CAPEX        | Hard surface renewals                               | 3                             | Investigation | 01/03/2012                   | 31/05/2012                    | \$290,550      |
|                       | WP0000286           | PARKS CEAF 2.8 ESTUARY CAPEX          | Hard surface renewals                               | 1                             | Investigation | 01/03/2012                   | 31/05/2012                    | \$300,000      |
| <b>ChCh City wide</b> | 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 under surfacing               | 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                            | Investigation | 01/03/2012                   | 31/05/2012                    | \$54,500       |
|                       | WP0000312           | PARKS Hard Surface Nthn & Sthn - OPEX | Hard surface repairs                                | 58                            | Investigation | 01/03/2012                   | 30/04/2012                    | \$127,950      |
|                       | WP0000313           | PARKS Hard Surfaces Nthn & Sthn CAPEX | Hard surface renewals                               | 14                            | Investigation | 01/03/2012                   | 30/04/2012                    | \$204,600      |
|                       | WP0000318           | PARKS Hard Surfaces Eastern CAPEX     | Hard surface renewals                               | 24                            | Investigation | 01/03/2012                   | 31/05/2012                    | \$902,450      |
|                       | WP0000321           | PARKS Hard Surface Eastern - OPEX     | Hard surface repairs                                | 76                            | Investigation | 01/03/2012                   | 31/05/2012                    | \$227,900      |
|                       | WP0000323           | PARKS City Wide Turf Repairs - OPEX   | Repairs to non sports turf surfaces                 | 110                           | Construction  | 01/11/2011                   | 31/05/2012                    | \$393,050      |
|                       | WP0000357           | PARKS Retaining Walls CAPEX           | Minor retaining wall renewals                       | 6                             | Investigation | 01/08/2011                   | 30/06/2012                    | \$262,000      |
|                       | WP0000358           | PARKS Retaining Wall Repairs          | Minor retaining wall repairs                        | 26                            | Investigation | 01/08/2011                   | 30/06/2012                    | \$203,150      |
|                       | WP0000376           | PARKS Minor Structures CAPEX          | Minor structures renewals                           | 9                             | Investigation | 01/08/2011                   | 30/06/2012                    | \$206,000      |
|                       | WP0000377           | PARKS Minor Structures Repairs        | Minor structures repairs                            | 64                            | Investigation | 01/08/2011                   | 30/06/2012                    | \$275,150      |
|                       | WP0000571           | PARKS 2012 Sports Fields              | Repairs to sports turf 2011/12                      | 45                            | Construction  | 01/09/2011                   | 31/03/2012                    | \$496,614      |

| Ward | Work Package Number | Work Package Name                     | Description  | Number of Projects in Package | Phase         | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|------|---------------------|---------------------------------------|--|-------------------------------|---------------|------------------------------|-------------------------------|----------------|
|      |                     | Repairs                               |  |                               |               |                              |                               |                |
|      | WP0000768           | PARKS Mature Tree Replacements        | Tree renewals at Hagley Park and Sth Brighton Domain               | 2                             | Construction  | 01/03/2012                   | 30/06/2012                    | \$100,000      |
|      | WP0000769           | PARKS Port Hills Restoration          | Port Hills rock fencing and planting                               | 2                             | Investigation |                              |                               | \$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                                  | 15                            | Investigation |                              |                               | \$816,200      |
|      | WP0000780           | Regional Parks                        | Repairs to structures and hard surfaces                            | 6                             | Investigation |                              |                               | \$465,000      |
|      | WP0000781           | Trees                                 | City wide tree renewals  | 1                             | Investigation |                              |                               | \$500,000      |
|      | WP0000782           | Ponds                                 | Repairs to small ponds and outflows in parks                       | 2                             | Investigation |                              |                               | \$50,000       |
|      | WP0000784           | Cemeteries - Operational              | Repairs and make safe work to headstones in Operational cemeteries | 18                            | Investigation | 01/12/2011                   | 30/06/2012                    | \$250,000      |
|      | WP0000785           | Cemeteries - Heritage                 | Repairs and make safe work to headstones in Heritage cemeteries    | 3                             | Investigation |                              |                               | \$250,000      |

| Ward                    | Work Package Number | Work Package Name                        | Description  | Number of Projects in Package | Phase        | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|-------------------------|---------------------|--|--|-------------------------------|--------------|------------------------------|-------------------------------|----------------|
|                         | 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      | XXXXX                        | XXXXX                         | \$6,133,100    |
| <b>Hagley Ferrymead</b> | WP0000252           | PARKS Victoria Lake CAPEX                | Relining Victoria lake   | 1                             | Construction | 01/07/2011                   | 29/02/2012                    | \$500,000      |
|                         | WP0000253           | PARKS CEAF 1.3 Hagley Pk/Bot.Gdns CAPEX  | Hard surface and playground under surfacing 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                             | Construction | 01/10/2011                   | 29/02/2012                    | \$103,500      |
|                         | WP0000264           | PARKS CEAF 1.6 H/F OPEX                  | Hard surface, track and minor structure repairs  | 21                            | Construction | 01/10/2011                   | 29/02/2012                    | \$178,499      |
|                         | WP0000265           | PARKS CEAF 1.8 BOT. GARDENS CAPEX        | Playground under surfacing repairs   | 1                             | Construction | 01/10/2011                   | 29/02/2012                    | \$50,000       |
|                         | WP0000287           | PARKS CEAF 2.9 VICTORIA SQUARE CAPEX     | Hard surface, track and minor structure renewals   | 4                             | On Hold      | XXXXX                        | XXXXX                         | \$727,000      |
|                         | WP0000288           | PARKS CEAF 2.10 CENTRAL CITY PARKS CAPEX | Hard surface renewals  | 3                             | On Hold      | XXXXX                        | XXXXX                         | \$15,000       |
|                         | WP0000289           | PARKS CEAF 2.10 CENTRAL CITY PARKS OPEX  | Hard surface, track and minor structure repairs  | 10                            | On Hold      | XXXXX                        | XXXXX                         | \$14,100       |
|                         | WP0000767           | PARKS Sumner/Scarborough Restoration     | Hard surface renewals  | 9                             | Construction | 01/12/2011                   | 31/03/2012                    | \$187,000      |

| Ward                     | Work Package Number | Work Package Name                        | Description  | Number of Projects in Package | Phase         | Estimated Construction Start | Estimated Construction Finish | Estimated Cost |
|--------------------------|---------------------|--|--|-------------------------------|---------------|------------------------------|-------------------------------|----------------|
| <b>Riccarton Wigram</b>  | WP0000280           | PARKS CEAF 2.5 MONA VALE CAPEX           | Hard surface, bridge and wall renewals             | 5                             | On Hold       | XXXXX                        | XXXXX                         | \$292,000      |
| <b>Shirley Papanui</b>   | WP0000255           | PARKS CEAF 1.5 Groyne 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                   | 31/05/2012                    | \$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                             | Investigation | 01/03/2012                   | 31/05/2012                    | \$20,500       |
|                          | WP0000278           | PARKS CEAF 2.3 S/P CAPEX                 | Hard surface renewals                              | 3                             | Investigation | 01/03/2012                   | 31/05/2012                    | \$90,000       |
|                          | WP0000778           | Roto Kohatu                              | Repairs to bank works at Roto Kohatu Reserve       | 1                             | Complete      | 01/02/2011                   | 30/04/2011                    | \$200,000      |
| <b>Spredon Heathcote</b> | WP0000279           | PARKS CEAF 2.4 S/H OPEX                  | Hard surface and minor structural repairs          | 11                            | Construction  | 01/11/2011                   | 31/03/2012                    | \$86,000       |
|                          |                     |  |  |                               |               |                              |                               |                |
|                          |                     |  |  |                               |               |                              |                               |                |
|                          |                     | <b>Status Summary</b>                    |  | 371                           | Investigation |                              | \$6,398,950                   |                |
|                          |                     |  |  | 235                           | Construction  |                              | \$2,928,163                   |                |
|                          |                     |  |  | 94                            | Complete      |                              | \$1,840,210                   |                |
|                          |                     |  |  | 163                           | On Hold       |                              | \$7,181,200                   |                |
|                          |                     |  |  |                               |               |                              |                               |                |
|                          |                     |  |  |                               | <b>TOTAL</b>  |                              | <b>\$18,348,523</b>           |                |

\*NOTE: ACC: Auckland City Council grant. CEAF: Canterbury Earthquake Appeal fund (projects are billed directly to Dept. Internal Affairs.)

### 6.3. Waste Water Treatment Plant and Organics Processing Plant

| Project                       | Description   | Phase         | Estimated Construction Start | Estimated Construction End | Estimated Cost |
|-------------------------------|---|---------------|------------------------------|----------------------------|----------------|
| <b>Clarifiers</b>             | C4<br>- New structural bottom<br>- CIPP repair to influent pipe<br>- Modify Arms to suit new structure.   | Construction  | Nov 11                       | 3 Feb 12                   |                |
|                               | C3<br>- New structural bottom<br>- CIPP repair to influent pipe.<br>- Modify Arms to suit new structure   | Construction  | 24 Jan 12                    | 30 May 12                  |                |
|                               | C1<br>- New structural bottom<br>- CIPP repair to influent pipe<br>- Modify Arms to suit new Structure  | Investigation | April 12                     | 31 July 12                 |                |
|                               | C2<br>- Verify that emergency repairs have returned asset to pre-EQ functionality and asset condition.  | Investigation |                              |                            |                |
|                               |   |               |                              |                            | \$8,982,026    |
| <b>Civil &amp; Structural</b> | <ul style="list-style-type: none"> <li>Paving</li> <li>C2 water</li> <li>Crack repairs to structures.</li> <li>Reclad Digester 2</li> </ul>   | Construction  | Oct 11                       | Sept 12                    |                |
|                               |   | Construction  | Oct 11                       | Feb 12                     |                |
|                               |   | Construction  | April 11                     | Sept 12                    |                |
|                               |   | Complete      | Sept 11                      | Dec 11                     |                |
|                               |   |               |                              |                            | \$3,187,259    |
| <b>Oxidation Ponds</b>        | <ul style="list-style-type: none"> <li>Transfer structures.</li> <li>Pond banks strengthen and reinstate to design levels.</li> <li>Estuary outfall structure</li> <li>Cuthberts Road transfer structure</li> </ul>   | Construction  | Oct 11                       | Mar 12                     |                |
|                               |   | Construction  | Jan 12                       | Sept 12                    |                |
|                               |   | Design        | May 12                       | Aug 12                     |                |
|                               |   | Design        | April 12                     | July 12                    |                |
|                               |   |               |                              |                            | \$18,122,788   |
| <b>Galleries</b>              | <ul style="list-style-type: none"> <li>South Gallery – drainage and structural</li> <li>North Gallery – drainage &amp; joints</li> <li>Diagonal Gallery – drainage &amp; joints</li> <li>Pump Stn A – drainage &amp; joints</li> <li>Sludge Rm A – drainage &amp; joints</li> </ul> | Construction  | Feb 12                       | May 12                     |                |
|                               |   | Design        | May 12                       | July 12                    |                |
|                               |   | Design        | April 12                     | July 12                    |                |
|                               |   | Design        | July 12                      | Aug 12                     |                |
|                               |   | Design        | July 12                      | Aug 12                     |                |
|                               |   | Design        | July 12                      | Aug 12                     |                |
|                               |   |               |                              |                            | \$1,353,550    |



| Project                      | Description   | Phase   | Estimated Construction Start   | Estimated Construction End  | Estimated Cost      |
|------------------------------|---|---|--|---|---------------------|
| Trickling Filters            | <ul style="list-style-type: none"> <li>Trickling Filter 1</li> <li>Trickling Filter 2</li> </ul>  | Investigation<br>Investigation  | Aug 12<br>Nov 12   | Nov 12<br>Mar 13  | \$700,000           |
| Mechanical & General Repairs | <ul style="list-style-type: none"> <li>Digesters 2</li> <li>Digesters 3</li> <li>Digester 4</li> <li>Digester 1</li> <li>Digesters 5</li> <li>Digester 6</li> <li>Buffer Tank</li> <li>Primary Sedimentation Tanks</li> <li>Bio- Solids Holding Tank</li> </ul> | Construction<br>Detailed Design<br>Investigation<br>Investigation<br>Investigation<br>Investigation<br>Complete<br>Construction<br>Design | Oct 11<br>Feb 12<br>June 12<br>Aug 12<br>Oct 12<br>Jan 13<br>Nov 11<br>June 11<br>May 12 | Feb 12<br>June 12<br>Aug 12<br>Oct 12<br>Dec 12<br>Mar 13<br>Jan 12<br>July 12<br>Sept 12 | \$4,088,195         |
| Organics Processing Plant    | <ul style="list-style-type: none"> <li>Demolish &amp; Reconstruct Tunnels</li> <li>Repair &amp; Strengthen Process Hall</li> <li>Repair Hard Standing</li> </ul>  | Detailed Design   | Feb 12   | July 13   | \$9,518,133         |
|                              |   |   |  |   |                     |
|                              | <b>TOTAL</b>  |   |  |   | <b>\$45,951,951</b> |

#### 6.4. Burwood Landfill

| Project   | Description   | Material Received (tonnes) | Material Processed (tonnes) | Phase   | Estimated Construction Start                                     | Estimated Construction End                                       | Estimated Cost                        |
|---|---|----------------------------|-----------------------------|---|--|--|---------------------------------------|
| <b>Burwood Landfill</b><br>Liquefaction and Infrastructure Rebuild Waste Disposal   | <ul style="list-style-type: none"> <li>Prepare areas for disposal</li> <li>Operate and maintain disposal site</li> <li>Restoration and landscaping</li> <li>Resource consent application</li> </ul>   | 300,000                    | 300,000                     | Completed<br>Completed<br><br>Investigation<br>Investigation          | Feb 11<br>Feb 11<br><br>Jan 12<br>Jan 12                         | Jan 12<br>Jan 12<br><br>Dec 13<br>Feb 12                         | Self Funded                           |
| <b>Burwood Landfill</b><br>Residual Demolition Waste Disposal                       | <ul style="list-style-type: none"> <li>Design of new cell for residual waste</li> <li>Cell construction</li> <li>Operate and maintain disposal site</li> <li>Restoration and landscaping</li> <li>Resource consent application</li> </ul>   | 0                          | 0                           | Design<br><br>Design<br>Design<br><br>Design<br>Investigation         | Oct 11<br><br>Mar 12<br>Sep 12<br><br>Jul 17<br>Oct 11           | Mar 12<br><br>Aug 12<br>Dec 17<br><br>Dec 17<br>Feb 12           | To be funded by Transwaste Canterbury |
| <b>Burwood Resource Recovery Park</b><br>Demolition Sorting and Processing Facility | <ul style="list-style-type: none"> <li>Construct areas for storage of material and associated roading</li> <li>Design of sorting plant</li> <li>Construction of sorting plant</li> <li>Sorting operation</li> <li>Rehabilitation and landscaping</li> <li>Resource consent application</li> </ul> | Commercially Sensitive     | 0                           | Complete<br><br>Design<br>Design<br>Design<br>Design<br><br>Submitted | Feb 11<br><br>Mar 11<br>Mar 12<br>Sep 12<br>Jul 17<br><br>Oct 11 | Jun 11<br><br>Feb 12<br>Aug 12<br>Dec 17<br>Dec 17<br><br>Jan 12 | To be funded by Transwaste Canterbury |
|   |   |                            |                             |   |  |  |                                       |
|   | <b>TOTAL</b>  | <b>300,000</b>             | <b>300,000</b>              |   |  |  |                                       |

## 6.5. Water Supply Wells Damage Summary

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.

|  | At Ground Level | Below Ground Level | Totals       |
|--|-----------------|--------------------|--------------|
| <b>Total number of active wells</b>          |                 |                    | 154          |
| <b>Wells yet to be repaired<sup>+</sup>*</b> | 44              | 62                 | 106          |
| <b>Cost Estimate all repairs<sup>+</sup></b> | \$4,692,000     | \$16,478,000       | \$21,170,000 |
| <b>Wells repaired to date<sup>+</sup>*</b>   | 59              | 58                 | 117          |
| <b>Cost to date<sup>+</sup></b>              | \$2,272,398     | \$2,933,063        | \$5,205,461  |

<sup>+</sup> includes replacement wells

<sup>\*</sup> Some wells are damaged both at and below ground level