

**10. INFRASTRUCTURE REBUILD MONTHLY REPORT**

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<b>Officer responsible:</b>	Infrastructure Rebuild Client Manager
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**PURPOSE OF REPORT**

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

**EXECUTIVE SUMMARY**

2. At its April 2011 meeting, Council gave approval for an Alliance to be formed to deliver the reinstatement of the City's damaged infrastructure. It was also agreed that the Chief Executive would report regularly to the Council on progress with regard to the reinstatement work.
3. The report (**Attachment A**) is the 10<sup>th</sup> 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 July 2012.



New Zealand Government

**INFRASTRUCTURE REBUILD PROGRESS REPORT**  
**JULY 2012**

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## **1. INTRODUCTION**

The purpose of this report is to provide Council, CERA and NZTA an update on the horizontal infrastructure rebuild. For this month, and going forward, progress on all horizontal infrastructure rebuild work is reported. This includes the work activity being delivered by SCIRT (section 5) and work being delivered under business as usual (BAU) mechanisms (section 6).

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

The month of June has seen a continued increase in the value of work delivered in the field compared to May despite the snow events. The general trend is a continued increase in activities in the field with more projects opening up. The Alliance is on track to reach peak capacity by the end of the calendar year.

It has not been possible to externally release the forward work programme for the rebuild to date but it is hoped that this will occur by the end of the month. Seven Community Boards have been visited this month to provide an update on work ongoing within each ward and to seek feedback and any issues related to the rebuild. Overall the feedback from the Boards has been incredibly positive. This has been mirrored in the independent customer satisfaction survey results outlined in section 3. The challenge is to maintain that good feedback and ensure that the increase in work sites across the City is seen as 'progress and not pain' for the people of Christchurch.

Overall, there is continued momentum with the infrastructure rebuild and a committed focus to delivering on the targets for the year ahead.

### **3. COMMUNICATION AND COMMUNITY ENGAGEMENT**

The launch of the infrastructure rebuild forward programme of works has been delayed and is now expected to occur in late July. As previously indicated, the intention is to launch the programme with a joint media conference. This will be followed with more communication activity to inform the community about the rebuild work and progress being made. Meetings that had been booked in with Community Boards for June and July to talk about the programme are going ahead as planned, with staff giving progress updates.

A recent face-to-face survey of residents in areas where SCIRT is working showed 88 per cent of residents were satisfied with communication about the rebuild. Areas survey included comprehensiveness, accuracy, timeliness, explanation of impacts, approachability of the communication team and overall communication.

In June, the communications team continued to keep residents informed of rebuild progress. During the month the team delivered 45 start work notices to more than 11,000 houses and carried out 209 face-to-face communications, largely through door-knocking. There were 50 web updates and two e-newsletters distributed. SCIRT also carried out four school visits to educate pupils about safety around work sites in areas where construction is underway.

Consultation began for Hoon Hay pressure sewer systems, Victoria Park reservoir and PS 63 on Ascot Golf Course. Feedback so far suggests the community is generally supportive of proposed works when there is a clearly defined technical justification.

Some of the retaining wall repairs that have started require residents to agree to property easements to allow ground anchors before work can begin. This is a legal process and, in an effort to make this as straight-forward as possible for

residents, a comprehensive set of questions and answers about the work and the legal issues has been prepared.

Media interest in the rebuild continued to be high in June, with 14 items appearing in local publications. Regular advertisements are also placed in Christchurch newspapers to keep residents informed about the work that is underway.

## **4. FINANCIALS**

Below is a summary of the actual costs to date against the Annual Plan and a summary of actual costs to date against the overall infrastructure rebuild estimate.

### **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, Auckland City Council Parks Donation of \$931k, Council roading approved projects of \$827.4k, Energy Efficient Product Budget of \$150k and Earthquake Building/Infrastructure Shortfall Allowance of \$16.254m. (summarised in Table 1.1)

Table 1.0 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 June 2012.

It includes Work In Progress and contractor set up costs that are still to be allocated across activities and across the whole of the infrastructure rebuild programme. For the purpose of reporting this has been split into Overhead (SCIRT, Delivery Team, IRMO and CCC), Asset Assessment, Project Definition, Design and Unallocated Project costs.

As at the end of June 2012 the spend for 2011/12 is \$6m below the updated budget. The annual actual spend is higher than anticipated as it includes set up cost landing at the beginning of the project but budgeted for evenly over the programme.



**TABLE 1.0 ACTUAL YEAR TO DATE COSTS AGAINST 2011/12 ANNUAL PLAN BUDGET**

FINANCE AS AT 30 JUNE 2012						
Activity	Description	2011/12 Approved Budget	Actual Cost YTD	Forecast Total Spend This Year	Year End Variance	
Parks & Open Spaces	Greenspace	\$ 7,431,800	\$ 1,835,060	\$ -	\$ 5,596,740	
Refuse Minimisation & Disposal	Solid Waste	\$ 6,900,000	\$ 3,091,587	\$ -	\$ 3,808,413	
Road Network	Roading	\$ 103,527,400	\$ 12,386,131	\$ -	\$ 91,141,269	
Wastewater Collection		\$ 67,226,000	\$ 84,470,103	\$ -	-\$ 17,244,103	
Wastewater Treatment & Disposal	WW Treatment Plant	\$ 85,578,000	\$ 13,249,043	\$ -	\$ 72,328,957	
Water Supply	Water Supply	\$ 14,200,000	\$ 26,568,021	\$ -	-\$ 12,368,021	
Waterways & Land Drainage	Stormwater	\$ 16,800,000	\$ 18,420,611	\$ -	-\$ 1,620,611	
<b>Works in Progress and set up costs</b>						
Overhead		\$ -	\$ 84,889,327	\$ -	-\$ 84,889,327	
Asset Assessment			\$ 33,784,394		-\$ 33,784,394	
Project Definition			\$ 178,488		-\$ 178,488	
Design			\$ 14,082,567		-\$ 14,082,567	
Unallocated project costs			\$ 2,659,294		-\$ 2,659,294	
<b>Total Work in Progress and set up costs</b>		<b>\$ -</b>	<b>\$ 135,594,070</b>	<b>\$ -</b>	<b>-\$ 135,594,070</b>	
<b>TOTAL INFRASTRUCTURE REBUILD PROGRAMME</b>		<b>\$ 301,663,200</b>	<b>\$ 295,614,625</b>	<b>\$ 295,614,625</b>	<b>\$ 6,048,575</b>	

**TABLE 1.1 BUDGET ALLOCATION FOR 2011/12**

<b>Budget</b>	
Infrastructure rebuild	\$ 283,500,000
Auckland CCC Parks Donation	\$ 931,800
Earthquake Public Transport	\$ 827,400
Earthquake Building/Infrastructure Shortfall Allowance	\$ 16,254,000
Energy Efficient Product Budget	\$ 150,000
	<b>\$ 301,663,200</b>

## **4.2 Overall Infrastructure Rebuild Estimate – Actual life to date costs against estimate**

The current expected outturn for the overall rebuild of the City's horizontal infrastructure is \$2.015 billion (excluding contingency and escalation) but this is within a range of outcomes between in a range between \$1.520 billion and \$2.542 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 infrastructure plus three projects and their budgets, not included in the current cost estimate, totalling of \$18.163m. Table 2.1 presents the reconciliation of the estimates (\$2.015m and the 18.163m of other budgets).

Table 2.0 also includes Work In Progress and contractor set up costs that are still to be allocated across activities. For the purpose of reporting this has been split into Overhead (SCIRT, Delivery Team, IRMO and CCC), Asset Assessment, Project Definition, Design and Unallocated Project costs.

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

**TABLE 2.0 OVERALL LIFE TO DATE COSTS AGAINST CURRENT INFRASTRUCTURE REBUILD ESTIMATE**

Activity	Description	Current Estimate of Cost	Actual Cost 2010/11	Actual Cost 2011/12	Total Actual Cost	Forecast Total Spend	Programme Variance
Parks & Open Spaces	Greenspace	\$ 57,884,181	\$ 611,310	\$ 1,835,060	\$ 2,446,370	\$ 57,884,181	\$ -
Refuse Minimisation & Disposal	Solid Waste	\$ 8,761,905	\$ 2,076,017	\$ 3,091,587	\$ 5,167,604	\$ 8,761,905	\$ -
Road Network	Roading	\$ 893,446,448	\$ 856,191	\$ 12,386,131	\$ 13,242,322	\$ 893,446,448	\$ -
Wastewater Collection		\$ 714,095,238	\$ 1,665,896	\$ 84,470,103	\$ 86,135,998	\$ 714,095,238	\$ -
Wastewater Treatment & Disposal	WW Treatment Plant	\$ 96,356,381	\$ 4,488,038	\$ 13,249,043	\$ 17,737,082	\$ 96,356,381	\$ -
Water Supply	Water Supply	\$ 152,238,095	\$ 4,267,691	\$ 26,568,021	\$ 30,835,712	\$ 152,238,095	\$ -
Waterways & Land Drainage	Stormwater	\$ 110,619,048	\$ -	\$ 18,420,611	\$ 18,420,611	\$ 110,619,048	\$ -
Works in Progress and set up costs	Overhead		\$ 25,004,416	\$ 84,889,327	\$ 109,893,743		
	Asset Assessment			\$ 33,784,394	\$ 33,784,394		
	Project Definition			\$ 178,488	\$ 178,488		
	Design			\$ 14,082,567	\$ 14,082,567		
	Unallocated project costs			\$ 2,659,294	\$ 2,659,294		
<b>TOTAL</b>		<b>\$ 2,033,401,295</b>	<b>\$ 38,969,560</b>	<b>\$ 295,614,625</b>	<b>\$ 334,584,185</b>	<b>\$ 2,033,401,295</b>	<b>\$ -</b>

**TABLE 2.1 INFRASTRUCTURE REBUILD ESTIMATE ALLOCATION**

<b>Budget</b>	
Infrastructure rebuild	\$ 2,015,238,095
Auckland CCC Parks Donation	\$ 931,800
Earthquake Public Transport	\$ 827,400
Earthquake Building/Infrastructure Shortfall Allowance	\$ 16,254,000
Energy Efficient Product Budget	\$ 150,000
	<b>\$ 2,033,401,295</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.

The information collection process and the key metrics are still being developed in conjunction with SCIRT and the three client organisations and so will continue to be refined.

Asset Type	Asset Sub-Type	Unit	May	June	Life To Date
<b>Storm Water Pump Stations</b>	Pump Station	#		0	0
<b>Storm Water Reticulation</b>	Drainage	m	152	1,012	1,359
<b>Transport - Roading</b>	Bridges	#		0.0	0.0
	Pavement	m <sup>2</sup>	7,297	15,163	40,910
	Retaining Walls	#	0	0.2	3.9
<b>Waste Water Pump Stations</b>	Pump Station	#	0	1.0	7.2
<b>Waste Water Reticulation</b>	Gravity	m	3,906	2,655	19,664
	Pressure System	m	2,051	918	6,757
	Siphon System	m	0	37	69
<b>Water Supply Pump &amp; Reservoir Stations</b>	Pump Station	#	0	0.8	1.3
	Reservoir	#	1	0.2	3.0
<b>Water Supply Reticulation</b>	Mains	m	794	950	9,144
	Pipes	m	1,068	599	6,325

## 5.2 Number of Ongoing SCIRT Projects

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

Project Lifecycle Stage	May Estimate	June Estimate	May Estimated Construction Cost	June Estimated Construction Cost
Investigation (Asset Assessment)	3	37	\$18.9m	\$19.3m
Concept Design	65	64	\$568m	\$525.1m
Detailed Design	80	84	\$256.6	\$304.5
Construction	77	76	\$139.1	\$154.7
Handover	186	190	\$73m	\$74m
On Hold	96	52	\$82m	\$46.3
<b>Grand Total</b>	<b>507</b>	<b>503</b>	<b>\$1,138.6m</b>	<b>\$1,123.9m</b>

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

## **5.3 Ongoing 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 June 2012.

### 5.3.2 Burwood / Pegasus

DETAILED DESIGN		
Reference	Project	Project Description
10415	Pump Station PS63 (PS)	New replacement PS63 at Beach Road. This project is linked to 10926 for the approximately 4Km long 700mm pressure main.
10429	Estuary Rd Carriageway, PS37 to Bridge Street Catchment (WS,SW,RD)	Repairs to roads, stormwater and water in Estuary Road between Bridge Street and Beatty Street.
10585	PS25 - Catchment	Wastewater design for Pumping station 25 Catchment. This area includes sections of Banks Ave and Achillies Street that will be diverted into PS 108. This area also includes the Strathmore Gardens area. The majority of the catchment requires replacement of WW lines.
10620	Pages Rd Bridge	Repair to Pages Rd Bridge, including road network connecting to roundabout on North end of bridge.
10694	PS36 Renewal (WW)	New PS36 to replace existing PS36. New station capacity approximately 900 L/S. This project covers all design for the project and construction for above ground activities. A related project covers 2M of below ground construction works required.
10705	Owles Tce (WW)	Project released from hold March 2012.
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
10800	PS 108 Phase 2 Waste Water	Detailed Design of remediation works for wastewater catchment 108.
10801	PS108 Phase 2 Rooding and Storm Water Renewals (RD,SW,WS)	Design for repair (some full reconstruction) of minor to severe earthquake damage to carriageways, kerbs and channels, and footpaths with associated storm water and water supply works in 10 streets situated immediately to the east and west of Gayhurst Rd - generally south of Strathfield Ave in the west and McBratneys Rd in the east. This work will follow construction of wastewater repairs/replacement.
10808	PS25 Catchment RD SW and WS Repairs	Design for repair (some surface reconstruction) of minor to moderate earthquake damage to carriageways, kerbs and channels, and footpaths with some associated storm water and water supply works in 12 streets situated in the New Brighton Rd/Marshland Rd area adjacent to The Palms Shopping Mall. This work will follow construction of wastewater repairs/replacement.
10809	PS28 Catchment RD SW and WS Repairs	Design for repair (some full reconstruction) of minor to severe earthquake damage to carriageways, kerbs and channels, and footpaths with some associated stormwater and water supply works in streets situated in the area from Woodham Rd/Pages Rd north to Wainoni Rd/Breezes Rd. This work will follow construction of wastewater repairs/replacement.

**DETAILED DESIGN**

Reference	Project	Project Description
10819	Keyes Road Catchment (RD,SW)	Repair and reinstatement of roads and underground services (excluding wastewater).
10840	PS37 Catchment RD SW WS	Linked to Project 10318 WW for the RD WS and SW elements

**CONSTRUCTION**

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10314	Keyes Road Catchment (WW, WS)	Repair and/or reinstatement of wastewater system.	5/03/12	26/11/12	\$5,243,792	\$2,195,923
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.	7/05/12	11/01/13	\$4,289,815	\$581,795
10335	PS54 - Catchment	A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.	24/11/11	7/09/12	\$10,893,000	\$6,431,551
10349	PS39 - Birchfield Avenue WW EW	Emergency Works at the waste water pumping station in Dallington.	13/10/11	5/10/12	\$129,500	\$215,357
10359	PS54 - Niven St (WW)		25/10/11	26/06/12	\$22,100	\$62,282
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	25/09/12	\$5,187,910	\$3,513,831
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	19/06/12	\$2,110,000	\$2,132,511
10532	Cnr Pages & Cuff - Emergency Repair	A large waste water renewal to a section of gravity pipe in Pages Rd.	30/01/12	25/10/12	\$945,238	\$1,432,248
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	18/06/12	12/04/13	\$2,747,247	\$6,177



**CONSTRUCTION**

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
		Supply. This work follows wastewater repairs/replacement.				
<b>10577</b>	PS106 - Woolley	Minor new pump station.	18/05/12	21/09/12	\$428,800	\$5,549
<b>10651</b>	Keyes Rd Watermain (WS)	Watermain renewal in Keyes Road between Pratt Street and Hawke Street.	10/04/12	2/07/12	\$168,994	\$137,691
<b>10681</b>	Bower Avenue Watermain and Submains (WS)		27/02/12	31/07/12	\$553,869	\$334,603
<b>10803</b>	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.	7/05/12	28/09/12	\$900,394	\$9,930
<b>10806</b>	Pages & Cuffs Emergency Repair Roding (RD)	Road design for short section of dual carriageway on Pages Road. Rectification involves re-surfacing with new asphalt and minor adjustments to vertical profile and also a short stormwater pipe to connect to new low point in kerb.	4/05/12	29/06/12	\$433,037	\$153,971
<b>10833</b>	Fast Track - PS36 Sewerage Overflow Repairs Pages/Waitaki (WW)	Repair of overflow structure & pipe work to minimise discharges to the environment. Fast track project requiring some design input	2/07/12	12/07/12	\$29,841	\$1,581
<b>10838</b>	Minor Works - Banks Avenue	Footpath and roding repairs for safety improvements	22/02/12	26/06/12	\$244,519	\$110,529
<b>10846</b>	Water Main Replacement Projects - Feb 2012	Water Main replacement projects for: Vivian St, Admirals Way, Pine Ave. Other streets have been moved to other projects: Port Hills Rd and Flavell St to 10681. Keyes Road to 10314. All others removed.	28/05/12	23/07/12	\$705,367	\$462,648
<b>10859</b>	Minor Works - Private Laterals Keyes Road	Investigation and repair of private laterals to valid EOC claimants. (Pilot project)	TBC	TBC	TBC	\$15,065
<b>10882</b>	Emergency Work - Beatty Street	Emergency relay of a collapsed sewer on Beatty Street	TBC	TBC	\$161,561	TBC

### 5.3.3 Fendalton / Waimairi

#### DETAILED DESIGN

Reference	Project	Project Description
10839	Merivale Catchment RD SW WS	Linked to #10485 for the RD SW and WS elements of the One Pass Projects

#### CONSTRUCTION

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10425	Glandovey/Bryndwr Cluster	Design for repair to severe earthquake damage to wastewater and minor damage to carriageways, kerbs and channels, and footpaths (severity yet to be confirmed) storm water and water supply. This cluster incorporates the 9 streets immediately adjacent to and including Glandovey Road between the Wairarapa Stream and Strowan Road	18/06/12	13/05/13	\$2,817,756	\$6,001
10480	R126 Monavale Footbridge	Minor structural repair works	TBC	TBC	\$27,385	\$20,291
10485	Merivale WW	Approximately 9km of WW gravity system, one new pump station.	14/05/12	28/08/13	\$14,263,822	\$444,203
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.	21/03/12	17/05/13	\$4,795,898	\$302,756
10852	Minor Works -	Minor footpath, K&C and pavement repairs	30/05/12	14/09/12	\$226,107	\$75,000

**CONSTRUCTION**

<b>Reference</b>	<b>Project</b>	<b>Project Description</b>	<b>Estimated Start</b>	<b>Estimated Finish</b>	<b>Estimated Cost</b>	<b>Life To Date</b>
	Casebrook Block					
<b>10857</b>	Minor Works - Bridge Minor Works Project Package 02	Minor repair works to 55 bridges that suffered low levels of damage during the EQ events. Delivery team led with input from SCIRT Design teams where required.	1/08/12	28/08/12	\$29,231	\$27,009

### 5.3.4 Central City

DETAILED DESIGN		
Reference	Project	Project Description
10401	Moorhouse Brick Barrel 01 (SW)	Repair of a failed stormwater Brick Barrel pipe on Moorehouse Ave under the Colombo St over bridge
10464	F106 Antigua St Footbridge	Replacement of existing structure, or incorporate historical elements into major repair works
10465	F105 Bridge of Remembrance	Major structural repair works
10467	R114 Colombo St (North) Bridge	Major structural repair works Northern Colombo St, over the Avon, heritage bridge near intersection of Oxford Tce & Colombo St.
10482		
10844	Central City - Kilmore Street Catchment Area	One Pass rebuild for the Kilmore Street Brick Barrel Catchment area in the west of the CBD.

CONSTRUCTION						
Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated 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.	8/08/11	13/02/13	\$3,130,000	\$3,665,305
10506	Hagley Syphon	Open trenching through Avon and sewer works in North Hagley Park.	23/04/12	26/07/12	\$450,006	\$511,841
10867	Fitzgerald Ave Retaining Wall Footpath	Footpath element of the Retaining Wall project. Linked to Project #10445	TBC	TBC	\$604,414	\$88,107
10893	Minor Works- Bridge Minor Works Project Package 01 Bridging	Minor repairs to bridges requiring little design input. Project to be led by SCIRT Project Manager and Delivery teams	TBC	TBC	\$221,172	\$4,253

### 5.3.5 Hagley / Ferrymead (\*excludes central city)

DETAILED DESIGN		
Reference	Project	Project Description
10347	Gayhurst Rd (Bridge Works - EW)	Retrofit repair to bridge involving new abutments, piles, wingwalls and associated road approaches and services.
10405	Stadium Package 01	Repair of road and all buried services along a section of Ferry Rd and Moorehouse Ave, near the AMI stadium
10428	RW Mt Pleasant Rd Wall #156 (RW)	Design a replacement retaining wall to support a section of Mt Pleasant Road. The existing wall is constructed from gabion baskets and is not of heritage value
10449	St Johns (WW)	
10462	Site 228 Rangatira Tce Retaining Wall (RW)	
10498	Woolston South 1	5km WW gravity system and 1 new pump station with associated rising main, and individual pressure pumps for industrial properties; roading repair works with design for 1 road; approximately 350m new WS, and currently unknown extent of SW
10579	PS5 - Catchment (West of river)	Pump Station 5 catchment originally serviced an area either side of the Avon River at the northern end of Linwood Avenue and south eastern edge of lower Richmond. Pump Station 5 was badly affected in the series of earthquakes. A proposal to split the PS5 catchment either side of the river to enable removal of pump station from close proximity of the river has received informal agreement among CCC Asset and technical representatives. This project relates to the reinstatement of sewer services to the portion of the original PS5 catchment to the west of the Avon River. Initial assessment of condition suggests that the entire sewer network requires replacement, due to gross and differential land settlement and consequential adverse impact on sewer grades, in addition to physical damage to the predominantly earthenware piping. Reinstatement options will consider the range of options allowed under the technical standards and will likely require a new pump station or siphon crossing beneath the Avon river.
10582	PS8 - Catchment	Design for repair to severe earthquake damage to wastewater within Pump Station 8 catchment green zone. The green zone is located to the north-west of the Avon River and generally bounded by Flesher Ave to the east and south, Chrystal St to the west and Medway St to the north.
10584	PS27 Catchment Area (WW)	Assessment and repairs/relay of wastewater services in the catchment of the old pump station 27 on Avonside Drive.
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
10824	Beachville Catchment Area including Beachville Road & Celia Street (WW,WS,SW,RD)	Full one pass rebuild of the catchment area. Project Includes PS30, WW, SW, RD and Sea Wall assets. Projects already existing in this area which this catchment study will relate to are: 10600 - PS30, 10619 - Beachville Road Eastern Seawall, 10677 - Beachville Watermain WS.

### DETAILED DESIGN

Reference	Project	Project Description
10836	PS27 Catchment Area (RD,SW,WS)	Roading, Stormwater and Water Supply for a one pass approach for the PS27 Catchment. Linked to Project 10584.
10854	PS5 Catchment WS, SW & RD	Roading, Water Supply and Storm Water elements for a one pass rebuild of the PS5 WW Catchment area
10855	PS8 Catchment WS, SW & RD	Water Supply, Storm Water and Roothing elements for the one pass rebuild of the PS8 WW Catchment
10862	Lower Richmond Pump Stations - Avalon and Haywood	Pump Station construction

### CONSTRUCTION

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10303	Site 229 Mt Pleasant Rd Retaining Wall (RW)	60m replacement retaining wall and road reinstatement, in Mt Pleasant	29/05/12	21/12/12	\$458,381	\$825
10306	CCC - PM11 Randolph (WW)	3.6km, 1.2m dia WW pressure main	6/03/12	30/04/13	\$12,831,040	\$4,634,771
10317	Heberden Ave Permanent Solution (WW)	New gravity sewer diversion to replace broken sewer down Scarborough Cliffs.	26/03/12	11/10/12	\$256,733	\$368,734
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 are required for this work to be completed safely.	14/11/11	27/09/12	\$3,095,185	\$2,120,339
10388	Richardson Clarendon Syphon	The extent of this work for this work package is the replacement of the 144 Richardson Terrace / 121	12/08/13	4/10/13	\$473,489	\$2,425
10403	Barbour St Water (WS)	Replacement of water mains in two streets to the south and east of AMI Stadium, Waltham.	31/01/13	30/04/13	\$174,742	TBC
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.	31/10/11	29/06/12	\$203,962	\$206,612
10459	Lower Richmond-Stanmore to Fitzgerald (WW)	Approximately 5km of WW, gravity system; requiring 2 new pump stations	20/03/12	27/05/13	\$11,833,107	\$3,480,590

**CONSTRUCTION**

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10472	Charleston	Approx 2.9km WW enhanced gravity system, 1 new pump station; 0.3km SW; 8600m2 carriageway reconstruction, and 1830m2 localised repairs	27/04/12	31/01/13	\$3,737,683	\$570,877
10483	Lower Richmond (Southern Section) WS,SW,RD	Full reconstruction of intersection (80m), and localised repairs on remaining streets; 86m of SW replacement	2/07/12	28/09/12	\$316,261	\$6,621
10541	PS11 - Randolf		19/03/12	12/10/12	TBC	\$194,274
10548	Gloucester Street	Design for Wastewater, Stormwater, Water & Rooding along Gloucester Street between Woodham Road and Avonside Drive. Close to complete replacement of all WW and Rooding assets. Stormwater is reasonably intact.	11/05/12	21/09/12	\$1,078,084	\$333,663
10578	PS107	Minor new pump station.	28/05/12	22/11/12	\$563,749	\$918
10679	Moncks Spur No. 3	Repair and retrofit of reservoir.	12/04/12	13/07/12	\$217,591	\$120,314
10680	Clifton No. 4 Reservoir	Repair and retrofit of reservoir.	21/03/12	23/07/12	\$437,673	\$197,189
10716	PM 34 Sumner - Replacement		5/03/12	27/11/13	\$1,300,000	\$920,824
10820	McCormacks Bay Reservoir Stages 3,4 and 5	Tank 1 and 2 and access reinstatement.	2/07/12	27/08/13	\$1,106,431	\$12,247
10822	McCormacks Bay Reservoir Stage 2 Walls	Retaining walls and rock fall protection works at reservoir site.	31/01/12	16/01/13	\$1,549,159	\$742,109
10830	Minor Works - Bridge Minor Works Project Package 01 Rooding	Minor repair to bridges requiring little design input. Project to be led by SCIRT Project Manager and Delivery teams.	15/05/12	31/07/12	\$37,582	TBC
10853	McCormacks Bay Reservoirs - Rock Face Protection Work	Rock protection work to facilitate the repairs to the reservoir tanks	29/03/12	18/09/12	\$1,231,910	\$345,085
10864	Woodham Road (SW,RD,WS)	Storm water and water supply elements linked to project 10356 WW & RD	TBC	TBC	\$441,840	\$421,452

### 5.3.6 Lyttelton / Mt Herbert

#### DETAILED DESIGN

Reference	Project	Project Description
10511	RW 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.
10818	NZTA - Norwich & Gladstone Quay State Highway Repair (RD, WW, SW, WS)	Repairs to state highway adjacent to the Port of Lyttelton

#### CONSTRUCTION

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10394	RW Package 05 - Canterbury Stone Walls (RW)	Project to design three replacement retaining walls on Canterbury Street and one wall on Ripon Street, Lyttelton. The walls are up to 4.5m high and are of high heritage value.	23/04/12	9/11/12	\$1,482,372	\$63,521
10400	RW Package 08 - Lyttelton non-stone (RW)	Design five replacement retaining walls on London Street, Canterbury Street, Hawkhurst Road and Ticehurst Road. Sections of these walls are of high heritage value.	12/06/12	28/11/12	\$589,801	\$29,873
10424	Sumner Rd Retaining Wall L	Stage one of new 450m long modular block retaining wall.	25/11/11	6/11/12	\$1,658,595	\$797,167
10475	Site 079 Coleridge/Dublin St Ret. Walls	200m replacement retaining wall and road reinstatement in Lyttelton	8/04/12	9/07/13	\$1,607,135	\$44,898



### 5.3.7 Riccarton / Wigram

DETAILED DESIGN		
Reference	Project	Project Description
	*No projects in Detailed Design	

CONSTRUCTION						
Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10409	Halswell WW Package 03	Repair wastewater along a section of Halswell Rd, O'Halloran Dr, & within private properties behind Muir Ave.	3/05/12	4/12/12	\$1,516,362	\$20,765
10909	Minor Works - Port Hills Package 01	Minor road repairs within the Port Hills	TBC	TBC	\$178,770	\$6,371

### 5.3.8 Shirley / Papanui

#### DETAILED DESIGN

Reference	Project	Project Description
10816	PS7 Catchment Phase 4 Waste Water Renewals	Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley, centred upon Stapleton's Road and Shirley Road which bisect the catchment. (Area 4 of 4, central/western quarter of catchment)
10858	Minor Works - Pump Station Demolition and Repairs (WW)	Minor repair works to slightly damaged Pump Stations that require no major works during the rebuild programme. Demolition of 3 PS buildings to make safe in Red Zones. Project led by the delivery team with a SCIRT Design input and coordination. Close liaison with CCC Operations team (Graeme Black) required throughout the project.

#### CONSTRUCTION

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10344	Edgware Road - Emergency Works	A large complex repair to a sewer trunk main in Edgware Rd.	22/09/11	24/08/12	\$1,734,794	\$1,620,441
10435	Temporary Gravity Sewer Lower Styx Road	Provision of a temporary pressure sewer system to service dwellings in the southern end of Brooklands (CERA Red Zone)	4/04/12	1/08/12	\$924,505	\$742,102
10457	Purchas & Madras (Bealey - Edgware)	WW, SW and roading repairs. Includes traffic calming on Purchas St to conform with IDS and City Plan requirements for Local Road widths.	8/11/11	21/12/12	\$2,962,824	\$3,180,349
10534	Innes & Knowles - subcatchment	The local wastewater reticulation on Innes Rd and Knowles St between Philpotts Rd and Bretts Rd suffered earthquake induced damage during the recent seismic events. Some liquefaction and land settlement was recorded in the area. Investigations continue however much of the network is made up of Earthenware pipe laid during the 1920's and 1930's. This material has not performed well in other areas therefore it is anticipated some form of repair or replacement will be required for the majority of the network.	11/06/12	31/01/13	\$9,215,965	\$6,812
10535	Rutland Rd - subcatchment	Wastewater repair along a single street east of Papanui. This project area is lightly to be revised.	20/02/12	4/10/12	\$1,556,699	\$454,069

**CONSTRUCTION**

Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10536	Edgeware Rd - WW	This contract is for the supply and installation of approximately 1430m of 150 mm diameter PVC-U to replace the existing wastewater line along Edgeware Road. The works include supply and installation of new manholes and wastewater pipeline and connection to laterals from adjacent residential properties. The works include any temporary measures required to provide continued operation of the gravity system during construction.	6/03/12	21/09/12	\$1,770,383	\$972,644
10810	PS7 Catchment Phase 1 Waste Water Renewal	Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley, centred upon Stapleton's Road and Shirley Road which bisect the catchment. (Area 1 of 4, south of catchment)	29/05/12	10/04/13	\$4,521,962	\$120,954
10812	PS7 Catchment Phase 2 Waste Water Renewal	Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley, centred upon Stapleton's Road and Shirley Road which bisect the catchment. (Area 2 of 4, eastern quarter of catchment)	1/06/12	11/04/13	\$5,394,690	\$20,947
10814	PS7 Catchment Phase 3 Waste Water Renewal	Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley, centred upon Stapleton's Road and Shirley Road which bisect the catchment. (Area 3 of 4, north western quarter of catchment).	7/06/12	3/04/13	\$6,094,133	TBC
10851	Minor Works - Marshland Road & Belfast Road	Pavement repairs	18/04/12	12/07/12	\$278,527	\$252,725
10856	Minor Works - Northwood Block	Footpath, K&C and pavement repairs.	30/05/12	24/08/12	\$176,033	\$20,000
10899	Minor Works - Lower Styx Road & Turners Road	Pavement repairs	TBC	TBC	\$150,763	TBC

### 5.3.9 Spreydon / Heathcote

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
10398	Summerfield Package 01 (WW,SW,RD,WS)	Repair and reconstruction of all assets within a small catchment block.
10785	Holliss Ave / Glamis Place - All Services (WW,WS,SW,RD)	Repair of water & roading along a section of Holliss Ave (between Gunns & Centaurus) and all services within Glamis Pl.
10793	CCC - Pressure Main 105 BAU Project (WW)	Delivery of the Pressure main element of this CCC BAU project.
10797	NZTA Heathcote/Opawa Bridge Repairs	Ground improvements, and underpinning and lifting (jacking) of the abutments

CONSTRUCTION						
Reference	Project	Project Description	Estimated Start	Estimated Finish	Estimated Cost	Life To Date
10311	Antigua St / Burke St Arterial Roads (WW,WS,SW,RD)	Repair of road and all buried services along Antigua St (between Moorehouse & Brougham) and Burke St (between Selwyn & Montreal)	19/04/12	15/01/13	\$3,151,988	\$196,072
10379	Fisher Ave & Eastern Tce Syphon (WW)	Repair of Syphon near Fisher Ave	4/05/12	20/07/12	\$455,870	\$307,856
10385	Bewdley Evesham and Dellow	Repair of road and all buried services along Bewdley St, Eversham Cres & Dellow Pl.	20/04/12	14/09/12	\$1,374,176	\$1,099,029
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.	16/07/12	21/09/12	\$135,869	\$29,695
10410	Hollis Ave WW	Repair of wastewater along a section of Holliss Ave between Gunns Cres & Centaurus Rd.	19/04/12	17/08/12	\$643,868	\$452,684
10433	PS20 Locarno	Minor pump station repairs.	TBC	TBC	\$20,000	\$19,259
10821	Huntsbury Reservoir Tank No 2 &	New reservoir tank (no.2) constructed in NE corner of old	2/02/12	5/10/12	\$3,458,765	\$1,625,307

**CONSTRUCTION**

<b>Reference</b>	<b>Project</b>	<b>Project Description</b>	<b>Estimated Start</b>	<b>Estimated Finish</b>	<b>Estimated Cost</b>	<b>Life To Date</b>
	demolition	reservoir.				

## 5.4 Projects Complete by Ward

The following section outlines the 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	May Number of Projects	June Number of Projects	May Projects Life To Date Cost	June Projects Life To Date Cost
Burwood-Pegasus	75	76	\$20,050,743	\$21,902,166
Fendalton-Waimari	2	2	\$177,175	\$179,143
Central City	5	5	\$176,996	\$178,156
Hagley-Ferrymead	56	62	\$12,209,068	\$16,999,628
Lyttelton-Mt Herbert	5	5	\$38,936	\$154,405
Riccarton-Wigram	5	6	\$4,161,185	\$4,786,831
Shirley-Papanui	16	17	\$2,791,342	\$3,606,667
Spreydon-Heathcote	13	15	\$5,964,614	\$6,232,684
<b>Total</b>	<b>177</b>	<b>187</b>	<b>\$45,570,059</b>	<b>\$54,039,680</b>

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

### 5.4.1 List of Projects Complete by Ward

Ward	Reference	Project	Project Life to Date Cost
<b>Burwood-Pegasus</b>			
	<b>10312</b>	Rowes/Tomrich Street Watermain	\$264,245
	<b>10321</b>	PM51 Emergency Repair	\$1,510
	<b>10325</b>	Cresswell Avenue - Watermains	\$148,362
	<b>10327</b>	Pembroke Street	\$146,277
	<b>10328</b>	De Ville Place	\$103,999
	<b>10331</b>	PM39 - Gayhurst Rd	\$1,561,415
	<b>10332</b>	PM54 - Niven-Avonside	\$375,379
	<b>10338</b>	Wainoni Road (WW EW - Ottawa to Avonside)	\$ 908,330
	<b>10339</b>	Woodham Road (Temp Repairs)	\$4,143,991
	<b>10340</b>	Ottawa Road Sewer Emergency Repair	\$517,444
	<b>10342</b>	Avondale Road (Bridge Emergency Works)	\$ -
	<b>10343</b>	PM16 - Oakmont Green	\$ 4,287
	<b>10346</b>	Fleete Street - Emergency Repair	\$ 9,243
	<b>10351</b>	Ardrossan Street - Temp. Solution	\$347,571
	<b>10355</b>	Landy Street	\$18,738
	<b>10364</b>	Shortland Street	\$ 343,883
	<b>10366</b>	McBratneys Road - WM	\$348
	<b>10376</b>	PM28	\$1,492,629
	<b>10384</b>	Pacific_Tedder Watermain Replacement	\$524,901
	<b>10440</b>	PS 25C	\$15,392
	<b>10443</b>	PM38_Beach Rd	\$585,085
	<b>10484</b>	Pump Station 25 connection repair	\$8,977
	<b>10551</b>	Avondale Rd (Temp Repair)	\$ -
	<b>10576</b>	PM106 - Woolley	\$1,466
	<b>10604</b>	PM 45	\$318,157
	<b>10605</b>	Sylvia Street watermain	\$131,851
	<b>10606</b>	Chadlington Street Water Mains	\$35,376
	<b>10607</b>	PM 37	\$1,903,036
	<b>10608</b>	PM 35	\$1,078,502
	<b>10614</b>	Aldershot Street watermain (WS)	\$254,801
	<b>10615</b>	Willryan Avenue Watermain	\$236,997
	<b>10616</b>	Flemington and Ascot Ave Watermains	\$525,892
	<b>10617</b>	PM46	\$5,913
	<b>10621</b>	Chartwell Street Water Mains	\$384,089
	<b>10638</b>	630 Pages Road 450mm WW	\$25,397
	<b>10639</b>	23 Leaver Tce WW	\$62,858
	<b>10640</b>	153 Beach RD WW	\$ -
	<b>10641</b>	Kirner St WW	\$21,497
	<b>10645</b>	Inwoods Close 450mm WW	\$128,404
	<b>10647</b>	Travis Rd watermains and submains	\$215,845
	<b>10649</b>	Corhampton St watermains and submains	\$261,190

Ward	Reference	Project	Project Life to Date Cost
	10650	Water Main on Bridge Street Bridge (WS)	\$207,907
	10664	Saltaire (Bower to Marriots Rd) - WS	\$69,096
	10665	Sinclair (keyes to Rawson) - WS	\$250,841
	10669	Palmers Rd PS Stabilisation	\$16,065
	10670	Major flooding Pratt St.	\$295,425
	10671	Owles Tce Temp. (WW)	\$113,618
	10676	Marine Parade Watermain	\$153,358
	10682	Briarmont St watermain	\$87,815
	10683	Cowes St Watermain and Submains (WS)	\$107,789
	10684	Gresham Terrace Watermain and Submains (WS)	\$161,116
	10685	Inverell Pl Watermain and Submains (WS)	\$63,517
	10686	Orrick St Watermain and Submains (WS)	\$83,284
	10688	Blake St Watermain (WS)	\$343,340
	10689	Pegasus Ave Watermain	\$168,650
	10690	Bassett St Watermain (WS)	\$225,196
	10691	Falcon St Watermain	\$180,757
	10692	Beach Rd Watermain	\$138,143
	10695	Allstone Watermain	\$90,800
	10696	Marriotts Road Watermain	\$36,771
	10700	Hulverstone Drive Emergency Repair	\$22,188
	10702	Rawhiti Water Well Stormwater Outfall	\$147,524
	10706	Bowhill Watermain (WS)	\$149,728
	10708	Rookwood Ave Watermain	\$174,169
	10711	Waitaki St Temp. Sewer	\$ -
	10713	Chartwell St Wastewater	\$ -
	10714	Kate Sheppard Emergency Repair (Barkers Lane Temp Works) (WW)	\$187,534
	10723	Merrington Cres Watermain	\$183,621
	10728	Rowan Ave Emergency Work WW	\$447,340
	10744	PS 36 Gravity Main (Pages Rd)	\$579
	10749	Beach Rd Gravity Sewer (WW)	\$67,291
	10752	Desal plant long term storage	\$83,309
	10756	PM39 Temp Overland Pipe (PM)	\$7,828
	10789	Woodham Road Water Supply Pumping Line Renewal	\$83,862
	10794	Pratt Street (Keyes Road) Water Main from Pumping Station	\$222,864
	10834	Minor Works - Stage 1 Schools	\$7,185
<b>Fendalton-Waimari</b>	10354	Papanui Road - Emergency Work	\$53,511
	10590	Thornycroft Street - Pri4 WM	\$125,632
<b>Central City</b>	10447	Fitzgerald Ave Temp Sewer Replacement (WW)	\$22,117
	10455	Fitzgerald Ave Twin Bridges Temp Repairs	\$ -



Ward	Reference	Project	Project Life to Date Cost
	10726	Stormwater Pump Station 203	\$44,715
	10764	PM3 Temporary Repair (Complex Emergency)	\$3,365
	10790	Liverpool Street Water Main (CBD)	\$107,959
<b>Hagley-Ferrymead</b>			
<b>Lyttelton-Mt Herbert</b>	10382	Lyttelton Treatment Plant Access	\$ -
	10636	Priority Roads - Governors Bay Road Rebuild	\$115,021
	10672	Sutton Quay Retaining wall 441 (RW)	\$39,384
	10732	Flat land at base on hill along Main Road - WW	\$ -
<b>Riccarton-Wigram</b>	10309	Halswell Minor Roding Works - All Areas	\$295,318
	10380	Halswell WW Package 02	\$2,029,003
	10387	Townshend Crescent Wastewater	\$42,977
	10389	Sparks Rd Watermain	\$166,792
	10392	Halswell WW Package 1 (WW)	\$2,109,054
	10408	Glovers St water (WS)	\$143,686
<b>Shirley-Papanui</b>	10308	Riselaw Street	\$91,424
	10313	PM6 - Harrison St	\$201,468
	10322	Ranfurly Street	\$118,626
	10323	Chrystal Street	\$83,927
	10329	Hope street	\$143,266
	10330	Orontes Street - WS	\$90,022
	10334	PM7 - Stapletons Rd	\$239,379
	10345	Nancy Ave / Weston Rd	\$16,297
	10348	Shirley Road - Wastewater (Emergency Repair)	\$696
	10369	Orion Street	\$41,881
	10437	PM 40_Marshlands	\$485,813
	10439	Heyders_29-65_WW	\$312,477
	10446	Brooklands Roding - Temporary Repairs	\$344,591
	10460	449 Durham Street North	\$293,099
	10555	Madras Street / Forfar Wastewater	\$588,121
	10805	Madras Street Road, Storm Water & Water Supply Repairs	\$337,448
<b>Spreydon-Heathcote</b>	10320	Murray Aynsley Reservoir 2	\$148,173
	10381	Rydal St (WW)	\$910,563
	10390	Centaurus Rd Watermain	\$143,455
	10393	Smartlea WW Emergency Repair	\$109,991
	10396	75 Wilsons Emergency Repair	\$825
	10397	Glenelg Spur 01	\$130,921
	10432	PS19 Beckford	\$3,201
	10476	F207 Aynsley Tce Footbridge	\$8,205
	10477	F212 Sloan Tce Footbridge	\$593
	10545	PS19 - Syphon	\$ -
	10597	Huntsbury Reservoir	\$4,060,152
	10717	Colombo St (South) Bridge - Concept only, no construction work	\$2,207

Ward	Reference	Project	Project Life to Date Cost
		undertaken (RD)	
	<b>10745</b>	CCC - Sydenham Stn Replace Wells (WS)	\$203,400
	<b>10755</b>	PS19 Fifield - 171 Fifield (PS)	\$106,867
	<b>10787</b>	Rydal Street Water Supply, Storm Water and Roding Renewals (SW,WS, RD)	\$404,132
<b>Grand Total</b>			<b>\$54,039,860</b>

## **6. NON-SCIRT WORK ACTIVITY**

### **6.1 Introduction**

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

## 6.2 Greenspace

Ward	Work Package Number	Project	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
<b>Banks Peninsula Wards</b>	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
<b>Burwood Pegasus</b>	WP0000251	PARKS CEAF 1.1 Sth New Brighton CAPEX	Hard surface and playground undersurfacing renewals	8	Build	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	Build	01/10/2011	29/02/2012	\$131,000
	WP0000284	PARKS CEAF 2.6 TRAVIS CAPEX	Hard surface renewals	5	Complete	01/12/2011	29/02/2012	\$175,500
	WP0000285	PARKS CEAF 2.7 AVON PARK CAPEX	Hard surface renewals	3	Investigation	01/03/2012	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>City wide</b>	WP0000177	PARKS Playground Softfall - CAPEX	Replacement of contaminated softfall to playgrounds	24	Complete	01/08/2011	30/11/2011
WP0000206		PARKS Playground Softfall - OPEX	Repairs to playground undersurfacing	8	Complete	01/08/2011	20/12/2011	\$46,500
WP0000269		PARKS CEAF 2.2 S/P,F/W,R/W,L/M OPEX	Hard surface and minor structural repairs	11	Build	01/03/2012	31/05/2012	\$54,500
WP0000312		PARKS Hard Surface Nthn & Sthn - OPEX	Hard surface repairs	58	Build	01/03/2012	30/04/2012	\$127,950
WP0000313		PARKS Hard Surfaces Nthn & Sthn CAPEX	Hard surface renewals	14	Build	01/03/2012	30/04/2012	\$204,600
WP0000318		PARKS Hard Surfaces Eastern CAPEX	Hard surface renewals	24	Build	01/03/2012	31/05/2012	\$902,450
WP0000321		PARKS Hard Surface	Hard surface repairs	76	Build	01/03/2012	31/05/2012	\$227,900

Ward	Work Package Number	Project	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
		Eastern - OPEX						
	WP0000323	PARKS City Wide Turf Repairs - OPEX	Repairs to non sports turf surfaces	110	Complete	01/11/2011	31/05/2012	\$393,050
	WP0000357	PARKS Retaining Walls CAPEX	Minor retaining wall renewals	6	Build	01/08/2011	30/06/2012	\$262,000
	WP0000358	PARKS Retaining Wall Repairs	Minor retaining wall repairs	26	Build	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	Build	01/08/2011	30/06/2012	\$275,150
	WP0000571	PARKS 2012 Sports Fields Repairs	Repairs to sports turf 2011/12	45	Complete	01/09/2011	31/03/2012	\$496,614
	WP0000768	PARKS Mature Tree Replacements	Tree renewals at Hagley Park and Sth Brighton Domain	2	Build	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	Build			\$50,000
	WP0000784	Cemeteries - Operational	Repairs and make safe work to headstones in Operational cemeteries	18	Build	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	Project	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
<b>Hagley Ferrymead</b>	WP0000252	PARKS Victoria Lake CAPEX	Relining Victoria lake	1	Complete	01/07/2011	29/02/2012	\$500,000
	WP0000253	PARKS CEAF 1.3 Hagley Pk/Bot.Gdns CAPEX	Hard surface and playground undersurfacing renewals	5	Complete	01/09/2011	29/02/2012	\$295,000
	WP0000254	PARKS CEAF 1.4 Hagley Pk North CAPEX	Irrigation and Turf renewals	2	Complete	01/07/2011	31/07/2011	\$90,000
	WP0000263	PARKS CEAF 1.6 H/F CAPEX	Hard surface renewals	5	Complete	01/10/2011	29/02/2012	\$103,500
	WP0000264	PARKS CEAF 1.6 H/F OPEX	Hard surface, track and minor structure repairs	21	Build	01/10/2011	29/02/2012	\$178,499
	WP0000265	PARKS CEAF 1.8 BOT. GARDENS CAPEX	Playground undersurfacing repairs	1	Complete	01/10/2011	29/02/2012	\$50,000
	WP0000287	PARKS CEAF 2.9 VICTORIA SQUARE CAPEX	Hard surface, track and minor structure renewals	4	Investigation	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	Build	01/12/2011	31/03/2012	\$187,000
<b>Riccarton Wigram</b>	WP0000280	PARKS CEAF 2.5 MONA VALE CAPEX	Hard surface, bridge and wall renewals	5	Investigation	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	Build	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	Complete	01/03/2012	31/05/2012	\$20,500
	WP0000278	PARKS CEAF 2.3 S/P CAPEX	Hard surface renewals	3	Build	01/03/2012	31/05/2012	\$90,000

Ward	Work Package Number	Project	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	WP0000778	Roto Kohatu	Repairs to bank works at Roto Kohatu Reserve	1	Complete	01/02/2011	30/04/2011	\$200,000
<b>Spreydon Heathcote</b>	WP0000279	PARKS CEAF 2.4 S/H OPEX	Hard surface and minor structural repairs	11	Complete	01/11/2011	31/03/2012	\$86,000
<b>N/A</b>	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>Status Summary</b>		<b>66</b>	<b>Investigation</b>		<b>\$4,749,750</b>	
				<b>355</b>	<b>Build</b>		<b>\$3,771,199</b>	
				<b>285</b>	<b>Complete</b>		<b>\$3,665,374</b>	
				<b>154</b>	<b>On Hold</b>		<b>\$6,162,200</b>	
							<b>\$18,348,523</b>	

### 6.3 Wastewater Treatment Plant and Organics Processing Plant

Project	Description	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
<b>Clarifiers</b>	C4 - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new structure.	Complete	Nov 11	3 Feb 12	\$8,982,026
	C3 - New structural bottom - CIPP repair to influent pipe. - Modify Arms to suit new structure	<b>Complete</b>	24 Jan 12	<b>30 June 12</b>	
	C1 - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new Structure	Investigation	<b>July 12</b>	<b>30 Nov 12</b>	
	C2 - Verify that emergency repairs have returned asset to pre-EQ functionality and asset condition.	Investigation			
<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 Complete Construction Complete	Oct 11 Oct 11 April 11 Sept 11	Sept 12 Feb 12 Sept 12 Dec 11	\$3,187,259
<b>Oxidation Ponds</b>	<ul style="list-style-type: none"> <li>• Transfer structures 1-4</li> <li>• Transfer Structure 4-5.</li> <li>• Pond banks strengthen and reinstate to design levels.</li> <li>• Estuary outfall structure</li> <li>• Cuthberts Road transfer structure</li> </ul>	Complete Complete Construction  Design Design	Oct 11 Dec 11 Jan 12  July 12 Aug 12	Feb 12 Mar 12 <b>Nov 12</b>  Sept 12 <b>Dec 12</b>	\$18,122,788
<b>Galleries</b>	<ul style="list-style-type: none"> <li>• South Gallery – drainage and structural <i><b>Proposed repair strategy unsuccessful, redesign underway</b></i></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>	Design  <b>Construction</b> Design Design Design	Feb 12  June 12 Aug 12 Sept 12 Oct 12	<b>Aug 12</b>  Aug 12 Sept 12 Oct 12 Nov 12	\$1,353,550
<b>Trickling Filters</b>	<ul style="list-style-type: none"> <li>• Trickling Filter 1</li> <li>• Trickling Filter 2</li> </ul>	Investigation Investigation	Aug 12 Nov 12	Nov 12 Mar 13	\$700,000



Project	Description	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
<b>Mechanical &amp; General Repairs</b>	<ul style="list-style-type: none"> <li>• <b>Digesters 2</b></li> <li>• <b>Digesters 1</b></li> <li>• <b>Digester 4</b></li> <li>• <b>Digester 3</b></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>	<b>Construction</b> <b>Investigation</b> <b>Investigation</b> <b>Investigation</b> Investigation Investigation Complete Construction Design	Oct 11 <b>July 12</b> <b>Sept 12</b> <b>Nov 12</b> <b>April 13</b> <b>July 13</b> Nov 11 June 11 July 12	<b>Sept 12</b> <b>Nov 12</b> <b>Jan 13</b> <b>April 13</b> <b>July 13</b> <b>Oct 13</b> Jan 12 July 12 Dec 12	\$4,088,195
<b>Organics Processing Plant</b>	<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>	Construction	Mar 12	July 13	\$9,518,133
<b>Facilities</b>	<ul style="list-style-type: none"> <li>• Laboratory</li> <li>• Control Room</li> <li>• Workshops</li> <li>• Offices/ Cafeteria/ Mtg Room</li> </ul>	Investigation Investigation Investigation Investigation	Programme & Budget will follow from Investigation		
	<b>TOTAL</b>				<b>\$45,951,951</b>

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

## 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> 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> <li>Consultation documents to affected parties</li> <li>Consultation Feedback documents to affected parties</li> </ul>	<b>349,600</b>	<b>349,600</b>	Completed Operation Investigation Investigation Completed  Investigation	Feb 11 Feb 11 Jan 12 Jan 12 Apr 12  Jun 12	Jan 12 Dec 13 Dec 13 Aug 12 Jul 12  Jul 12	Self Funded
<b>Burwood Landfill</b> 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> <li>Consultation documents to affected parties</li> <li>Consultation Feedback documents to affected parties</li> </ul>	0	0	Design Design Design Design Investigation Completed  Investigation	Oct 11 Mar 12 Sep 12 Jul 17 Oct 11 Apr 12  Jun 12	Jun 12 Sep 12 Dec 17 Dec 17 Aug 12 <b>Jul 12</b>  <b>Jul 12</b>	To be funded by Transwaste Canterbury
<b>Burwood Resource Recovery Park</b> 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> <li>Consultation documents to affected parties</li> <li>Consultation Feedback documents to affected parties</li> </ul>	<b>322,000</b>	0	Complete  Design Construction Operation Design Investigation Completed  Investigation	Feb 11  Mar 11 <b>Jul 12</b> Dec 12 Jul 17 Oct 11 Apr 12  Jun 12	Jun 11  <b>Jun 12</b> Dec 12 Dec 17 Dec 17 <b>Aug 12</b> <b>Jul 12</b>  <b>Jul 12</b>	To be funded by Transwaste Canterbury
<b>TOTAL</b>		<b>671,600</b>	<b>349,600</b>				

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

## 6.5 Wells

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

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

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

	May At Ground Level	June At Ground Level	May Below Ground Level	June Below Ground Level	May Totals	June Totals
Total number of active wells					154	154
Wells yet to be repaired <sup>+</sup> *	35	32	49	50	84	82
Cost Estimate all repairs <sup>+</sup>	\$4,692,000	\$4,692,000	\$17,293,000	\$17,329,000	\$21,985,000	\$22,021,000
Wells repaired to date <sup>+</sup> *	67	70	78	81	145	151
Cost to date <sup>+</sup>	\$2,613,668	\$2,628,863	\$4,366,708	\$4,616,247	\$6,980,376	\$7,245,110

+ includes replacement wells

\* some wells are damaged both at and below ground level

## 7. Councillor queries on previous monthly Report

### Christchurch City Council Capital Programme Group

#### Memorandum

**Date:** 2 July 2012

**From:** Will Doughty (Infrastructure Rebuild Client Manager)

**To:** Christchurch City Councillors

**Copy To:** The Mayor

**RE:** COUNCIL EARTHQUAKE MEETING (21 JUNE 2012)  
- INFRASTRUCTURE REBUILD

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In response to the request to provide further information on the June Infrastructure Rebuild Progress Report, I can now confirm the following.

#### **Provide an update on Heritage headstone progress**

The project brief for the scope of the work has been completed. The work is to repair or make safe damaged headstones contained within the following cemeteries: Addington, Barbadoes, Woolston) and those cemeteries that have high heritage values, (Bromley, Linwood, Sydenham, Lyttelton (Reserve Terrace & Canterbury Street), Akaroa (Anglican, Catholic, Dissenters - also small areas in Belfast, Waimairi, Yaldhurst, Magdala and Duvauchelles.

The costing of options is anticipated to be completed by September 2012 and the first package of works will start around then. The project is scheduled to be completed by June 2013.