

## 10. INFRASTRUCTURE REBUILD MONTHLY REPORT

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Officer responsible:	Infrastructure Rebuild Client Manager
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#### **PURPOSE OF REPORT**

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

#### **EXECUTIVE SUMMARY**

- 2. At its April 2011 meeting, the 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 ninth of what will be a regular monthly report that is provided to both the Council and the Canterbury Earthquake Recovery Authority (CERA).

#### STAFF RECOMMENDATION

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

# Stronger Christchurch

Infrastructure Rebuild

# INFRASTRUCTURE REBUILD PROGRESS REPORT JUNE 2012

Project funded by





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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 also work being delivered under business as usual (BAU) mechanisms (section 6).

### 2. ACTIVITIES FOR THE MONTH

This month has seen a significant increase in the value of work delivered by SCIRT in the field. This is the result of the previous few months increase in design that has ensured that there is sufficient work in progress for the contractors. The work in construction has increased 50% on the April figure. The challenge is to support the delivery teams as they build their resource base to meet ongoing performance.

With regard to communications the focus for the coming couple of months will be the rollout of the forward work schedule to the community. Further detail with regard to the proposed communication is provided in section 3. Community understanding, with regard to the prioritisation of rebuild work and the upcoming schedule, is vital to the success of the rebuild.

Work is ongoing to ensure the Client Governance framework for the infrastructure rebuild is further refined and enhanced, in order to address the areas of funding, strategy, scope and standards, and communications. Mark Ford was appointed as an independent chair to the Client Governance Group in May.

Overall the next six months for the rebuild are a critical time to build on the successes to date and to change the rebuild activities from 'ramp up' to consistent delivery at that level, in order to achieve targets and forecasts for the coming year.

### 3. COMMUNICATION AND COMMUNITY ENGAGEMENT

A date for the launch of the forward schedule of works is being finalised and is expected in mid- to late-June. This will involve a media conference fronted by the Minister for Earthquake Recovery and the Mayor. Following this, Council staff and SCIRT representatives will visit each of the city's eight Community Boards to talk about work plans in their areas. A community road show is also being planned, with the aim of holding 10 public meetings across the city to talk about what is in the forward schedule of works.

There is expected to be significant media and public interest in the launch of the programme of works. Media interest in the rebuild generally is increasing, with 14 media items in local newspapers, radio and television news during May.

Regular progress updates are now available on the website, showing: projects in construction, projects in design; projects in process of being handed back to the clients; storm water and wastewater network assessment progress; fresh water pipes laid; road pavement laid and wastewater pipe laid. These statistics will be updated each month. Face-to-face satisfaction surveys of residents have been carried out and results are expected soon.

In May, SCIRT also: delivered start work notices to more than 15,000 individual houses'; sent three e-newsletters; hosted a public display at the Savvy Seniors Expo; installed 39 information signs; and responded to 150 email information requests and 272 hotline queries.

#### 4. FINANCIALS

The financial reporting structure will be refined overtime. However, 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 and Council roading approved projects of \$1,924k.

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 May 2012.

It 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 Non Physical Works and Physical Work components.

The Non Physical Works component includes costs associated with asset investigation and assessment, project definition and programme set up costs and overhead. These will be apportioned across the whole programme of the rebuild.

The Physical Works unallocated component of \$47,975,480 includes May's payment to SCIRT of \$28,702,436 and Concept Design costs associated with SCIRT projects that are as yet unallocated to their relevant activities of \$19,273,044.

As at the end of May 2012 the spend for 2011/12 is forecast to be \$15m over the annual budget. This is due mainly to the set up cost landing at the beginning of the project but budgeted for evenly over the programme. Also there is no budget against EQ Parking; however the project has been approved by Council. The Restart car park was an unplanned initiative to support the restart programme in Cashel Mall.

Table 1.0 Actual Year to Date Cost Against 2011/12 Annual Plan Budget

		201	1/12 Approved			F	orecast Total		Year End
Activity	Description		Budget	Ac	tual Cost YTD	Sp	end This Year		Variance
Parks & Open Spaces	Greenspace	\$	6,500,000	\$	1,179,719	\$	-		
Refuse Minimisation & Disposal	Solid Waste	\$	6,900,000	\$	1,775,413	\$	-		
Road Network	Roading	\$	102,700,000	\$	6,556,661	\$	-		
Wastewater Collection		\$	67,100,000	\$	65,852,657	\$	-		
Wastewater Treatment & Disposal	WW Treatment Plant	\$	69,300,000	\$	10,222,092	\$	-		
Water Supply	Water Supply	\$	14,200,000	\$	21,239,820	\$	-		
Waterways & Land Drainage	Stormwater	\$	16,800,000	\$	19,003,983	\$	-		
Works in Progress and set up costs	<b>3</b>								
Non Physical works Physical works un allocated		\$	-	\$ \$	89,822,399 47,975,480	·	-		
Total Work in Progress and set up	costs	\$	-	\$	137,797,879	\$ <b>\$</b>		\$	-
TOTAL INFRASTRUCTURE REBUIL	D PROGRAMME	\$	283,500,000	\$	263,628,224	\$	297,508,285	-\$	14,008,285
Other									
Auckland CC Parks Donation	Greenspace	\$	931,800	\$	407,965	\$	862,965		68,835
Road Network	EQ Public Transport EQ Parking	\$ \$	827,400	\$ \$	937,981 1,098,773	\$ \$	937,981 1,096,205		110,58 <sup>-</sup> 1,096,20
Total Other	LQ I aining	\$	1,759,200		2,444,720		2,897,152		1,137,952
GRAND TOTAL		\$	285,259,200	\$	266,072,943	\$	300,405,437	-\$	15,146,23

# 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 infrastructure plus three projects not included in the current cost estimate of \$1.8m.

It 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 Non Physical Works and Physical Works components.

The Non Physical Works component includes costs associated with asset investigation and assessment, project definition and programme set up costs and overhead. These will be apportioned across the whole programme of the rebuild.

The Physical Works unallocated component of \$47,975,480 includes May's payment to SCIRT of \$28,702,436 and Concept Design costs associated with SCIRT projects that are as yet unallocated to their relevant activities of \$19,273,044.

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	Curr	rent Estimate of Cost	Δctu	al Cost 2010/11	Δct	ual Cost 2011/12	To	tal Actual Cost	ı	Forecast Total Spend	Prograi	nme Variance
•	Description										•		inic variance
Parks & Open Spaces	Greenspace	\$	56,952,381	\$	611,310	\$	1,179,719	\$	1,791,029	\$	56,952,381	\$	-
Refuse Minimisation & Disposal	Solid Waste	\$	8,761,905	\$	2,076,017	\$	1,775,413	\$	3,851,431	\$	8,761,905	\$	-
Road Network	Roading	\$	892,619,048	\$	856,191	\$	6,556,661	\$	7,412,852	\$	892,619,048	\$	-
Wastewater Collection		\$	714,095,238	\$	1,665,896	\$	65,852,657	\$	67,518,553	\$	714,095,238	\$	-
Wastewater Treatment & Disposal	WW Treatment Plant	\$	79,952,381	\$	4,488,038	\$	10,222,092	\$	14,710,130	\$	79,952,381	\$	-
Water Supply	Water Supply	\$	152,238,095	\$	4,267,691	\$	21,239,820	\$	25,507,511	\$	152,238,095	\$	-
Waterways & Land Drainage	Stormwater	\$	110,619,048	\$	-	\$	19,003,983	\$	19,003,983	\$	110,619,048	\$	-
Works in Progress and set up costs	Non Physical works Physical works un alloc	ated		\$	25,004,416	\$	89,822,399 47,975,480		114,826,815 47,975,480		- -		
TOTAL		\$	2,015,238,095	\$	38,969,560	\$	263,628,224	\$	302,597,783	\$	2,015,238,095	\$	-
<b>Other</b> Auckland CC Parks Donation Road Network	Greenspace EQ Public Transport EQ Parking	\$ \$ \$	931,800 827,400 - <b>1,759,200</b>	\$ \$	- - - -	\$ \$ \$	407,965 937,981 1,098,773 <b>2,444,720</b>	\$ \$	407,965 937,981 1,098,773 <b>2,444,720</b>	\$	862,965 937,981 1,096,205 <b>2,897,152</b>	\$- \$-	68,835 110,581 1,096,205 <b>1,137,95</b> 2
TOTAL		\$	2,016,997,295	\$	38,969,560	\$	266,072,943	\$	305,042,503	\$	2,018,135,247	-\$	1,137,952

## **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	April	May	Grand Total
Storm Water Reticulation	Drainage	m	26	152	312
Transport - Roading	Pavement	m2	572	7,297	24,855
	Retaining Walls	#	0	0	4
Waste Water Pump Stations	Pump Station	#	0	0	6
Waste Water Reticulation	Gravity	m	1,210	3,906	16,063
	Pressure System	m	54	2,051	5,371
	Siphon System	m	0	0	32
Water Supply Pump & Reservoir Stations	Pump Station	#	0	0	1
	Reservoir	#	0	1	3
Water Supply Reticulation	Mains	m	52	794	7,574
	Pipes	m	0	1,068	5,206

## **5.2 Number of Ongoing SCIRT Projects**

The following table is a summary of the programme pipeline as at  $31^{\rm st}$  May 2012. It shows how many projects and the total value at each stage of the project lifecycle.

Project Lifecycle Stage	April Estimate	May Estimate	April Estimated Construction Cost	May Estimated Construction Cost
Investigation (Asset Assessment)	6	3	\$0.00	\$18,941,000
Concept Design	69	65	\$447,900,000	\$567,955,000
Detailed Design	92	80	\$256,600,000	\$256,557,296
Construction	65	77	\$115,500,000	\$139,110,876
Handover	169	186	\$65,500,000	\$72,994,617
On Hold	95	96	\$81,000,000	\$81,985,855
Grand Total	496	507	\$966,500,000	\$1,137,544,644

In the table above, the previous monthly report totals have also been included to show the increase 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 May 2012.

# 5.3.2 Burwood / Pegasus

	Burwood	/ Pegasus in Detailed Design
Reference	Project	Project Description
10415	Pump Station PS63 (PS)	New PS63 at Beach Road end and approximately 4Km long 700¿ pressure main, to replace PS63.
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.
10553	Avondale Road (Bridge Works)	Retrofit repair to bridge involving new abutments, piles, wing walls and associated road approaches and services.
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.
10724	Bridge St bridge and approaches	Replace damaged bridge abutments and approaches with new structure including roadwork and services reinstatement.
10786	PS108 Catchment Stormwater, Water Supply and Roading Renewals (SW,WS,RD)	Design for repair (some full reconstruction) of minor to severe earthquake damage to carriageways, kerbs and channels, and footpaths with associated storm water and water supply works in 11 streets situated immediately to the east and west of Gayhurst Rd from McBratneys Rd northwards to Mundys Rd. This work will follow construction of wastewater repairs/replacement.
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.

_	Burwood	/ Pegasus in Detailed Design
Reference	Project	Project Description
10801	PS108 Phase 2 Roading 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.
10802	PS54 Stage 1 - Northern Roading Renewals Incl Breezes Road	Road design for 8 roads in Avondale. New pipe systems are needed in multiple roads requiring asset managers understanding and buy-in. Includes stormwater full dynamic modelling with probable need to restore capacity by optioneering new components (new basin and/or pump upgrading).
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.
10840	PS37 Catchment RD SW WS	Linked to Project 10318 WW for the RD WS and SW elements

		Burwood / Pegasus in Con	struction			
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Constructio n Cost	Life To Date
10314	Keyes Road Catchment (WW, WS)	Repair and/or reinstatement of wastewater system.	30/03/12	08/10/2012	\$4,433,111	\$561.25
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	05/12/2012	\$4,289,815	\$3,071.17
10335	PS54 - Catchment	A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.	9/01/12	27/07/2012	\$10,893,000	\$4,375,497 .35
10349	PS39 - Birchfield Avenue WW EW	Emergency Works at the waste water pumping station in Dallington.	13/10/11	29/06/2012	\$129,500.00	\$41,880.22
10359	PS54 - Niven St (WW)		25/10/11	25/07/2012	\$22,100.00	\$62,281.94
10363	PS108 Catchment (old PS39 Catchment)	A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.	8/11/11	23/10/2012	\$5,187,910	\$1,226,750 .26
10421	Estuary Rd Carriageway, PS37 to Bridge Street Catchment (WW)	ry Rd Estuary Road from Beatty Street to Bridge Street is undergoing the installation of a new deep gravity sewer main. Installation		25/05/2012	\$2,110,000	\$856,534.2 0
10532	Cnr Pages & Cuff - Emergency Repair	A large waste water renewal to a section of gravity pipe in Pages Rd.	30/01/12	06/07/2012	\$945,238.00	\$108,610.5 0

	Burwood / Pegasus in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Constructio n Cost	Life To Date	
10576	PM106 - Woolley	A small simple sewer pressure main being constructed in Woolley St to service a modified sewer catchment in Avondale.	31/01/12	02/07/2012	\$124,770.00	\$0.00	
10577	PS106 - Woolley	Minor new pump station.	18/05/12	24/08/2012	\$428,800.00	\$0.00	
10651	Keyes Rd Watermain (WS)	Watermain renewal in Keyes Road between Pratt Street and Hawke Street.	14/05/12	20/07/2012	\$168,994.00	\$20,790.63	
10681	Bower Avenue Watermain and Submains (WS)		27/02/12	09/07/2012	\$322,458.00	\$0.00	
10752	Desal plant long term storage		15/11/11	01/06/2012	\$0.00	\$61,768.00	
10789	Woodham Road Water Supply Pumping Line Renewal	A small watermain replacement in Wainoni.	23/01/12	25/01/2013	\$106,585.00	\$34,929.58	
10803	PS54 Stage 1 Southern Roading Renewals (South of Breezes Road)	Road design for Pembroke St and Horton Place in Avondale. A new pipe system is needed on Horton St requiring asset managers understanding and buy-in.	18/06/12	31/08/2012	\$900,394.00	\$0.00	
10806	Pages & Cuffs Emergency Repair Roading (RD)	Road design for short section of dual carriageway on Pages Road. Rectification involves re-surfacing with new asphalt and minor adjustments to vertical profile and also a short stormwater pipe to connect to new low point in kerb.	4/05/12	15/06/2012	\$433,037.00	\$0.00	

	Burwood / Pegasus in Construction							
Reference	Project	Project Description Construct				Estimated Construction Finish	Estimated Constructio n Cost	Life To Date
10833	Fast Track - PS36 Sewerage Overflow Repairs Pages/Waitaki (WW)	Repair of overflow structure and pipe work to minimise discharges to the environment. Fast track project requiring some design input	13/07/12	23/08/2012	\$29,841.00	\$0.00		
10838	Minor Works - Banks Avenue	Footpath and roading repairs for safety improvements	21/02/12	08/05/2012	\$244,519.00	\$20,922.45		
10846	Water Main Replacement Projects - Feb 2012	Water Main replacement projects for: Vivian St, Admirals Way, and 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.	11/05/12	10/08/2012	\$705,367.00	\$0.00		
10859	Minor Works - Private Laterals Keyes Road	Investigation and repair of private laterals to valid EQC claimants. (Pilot project)	26/03/12	22/04/2013	\$0.00	\$0.00		

# 5.3.3 Fendalton / Waimari

	Fendalton / Waimari in Detailed Design						
Reference	Project	Project Description					
10595	Wairakei Road (WW)	Replacement of the deep 225 mm sewer main and the construction of new 150 mm sewer rider mains over the deep main. The wastewater works are from Aorangi Street to Idris Road.					
10839	Merivale Catchment RD SW WS	Linked to #10485 for the RD SW and WS elements of the One Pass Projects					

	Fendalton / Waimari in Construction							
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date		
10480	R126 Monavale Footbridge	Minor structural repair works	1/05/12	05/06/2012	\$27,385.00	\$0.00		
10485	Merivale WW	Approximately 9km of WW gravity system, one new pump station.	14/05/12	15/04/2013	\$14,263,822	\$0.00		
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. Much of the network suffered either loss of grade, cracks and breakages or a combination. Therefore a significant proportion, if not all, of the network will need to be repaired or replaced.	2/04/12	20/06/2013	\$4,795,898.00	\$150.00		
10852	Minor Works - Casebrook Block	Minor footpath and pavement repairs	30/05/12	14/09/2012	\$226,107.00	\$0.00		
10857	Minor Works - Bridge Minor Works Project Package 02	Minor repair works to 55 bridges that suffered low levels of damage during the EQ events. Delivery team led with input from SCIRT Design teams where required.	11/05/12	22/06/2012	\$29,231.00	\$0.00		

## 5.3.4 Central City

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.

	Central City in 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			
10482	Triumphal Arch	All works related to the permanent repair work. Project is in CBD and a heritage structure.			
10507	PS3	Repair of wastewater reticulation and pump station within the PS3 catchment			

	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 Roading	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	24/10/2012	\$3,130,000.00	\$2,690,16 7.16		
10506	Hagley Syphon	Open trenching through Avon and sewer works in North Hagley Park.	23/04/12	26/06/2012	\$395,117.00	\$5,687.72		
10867	Fitzgerald Ave Retaining Wall Footpath	Footpath element of the Retaining Wall project. Linked to Project #10445	25/05/12	28/09/2012	\$604,414.00	\$0.00		

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

	Hagley / Ferrymead in Detailed Design					
Reference	Project	Project Description				
10307	173 Maffeys Road retaining wall	Repair of retaining wall in Maffeys Rd, along with associated buried services				
10347	Gayhurst Rd (Bridge Works - EW)	Retrofit repair to bridge involving new abutments, piles, wing walls and associated road approaches and services.				
10449	St Johns (WW)					
10450	Woolston South 1 - Pressure Sewerage System Area	Provision of a permanent pressure sewer or enhanced gravity system to replace damaged WW reticulation. Project was first known as Riley Crescent but this caused confusion as it includes a wider area than just this street.				
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.				

	Hagley /	Ferrymead in Detailed Design
Reference	Project	Project Description
10582	PS8 - Catchment	Design for repair to severe earthquake damage to wastewaster 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.
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.
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
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.
10843	Lower Richmond Catchment RD SW WS	Linked to #10459 for the RD SW and WS elements of the project
10854	PS5 Catchment WS, SW & RD	Roading, Water Supply and Storm Water elements for a one pass rebuild of the PS5 WW Catchment area
10862	Lower Richmond Pump Stations - Avalon and Harvey	Pump Station construction

	Hagley / Ferrymead in Construction							
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Constructio n Cost	Life To Date		
10303	Site 229 Mt Pleasant Rd Retaining Wall (RW)	60m replacement retaining wall and road reinstatement, in Mt Pleasant	2/07/12	21/09/2012	\$458,381.00	\$0.00		
10306	CCC - PM11 Randolph (WW)	3.6km, 1.2m dia WW pressure main	6/03/12	23/07/2013	\$12,831,040	\$1,083,008 .05		
10317	Heberden Ave Permanent Solution (WW)	New gravity sewer diversion to replace broken sewer down Scarborough Cliffs.	22/05/12	31/07/2012	\$256,733.00	\$166,913.9 6		
10356	Woodham Rd (PS5 east of river)	The project scope requires replacement of 960m of damaged waste water from Linwood Ave to Ngarimu St. Road refurbishment will follow sewer works. Traffic diversions are required for this work to be completed safely.	14/11/11	30/07/2012	\$3,095,185	\$1,261,620 .51		
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.	21/11/11	31/05/2012	\$124,548.00	\$125,199.0 9		
10361	PS54 Catchment Temp. Solutions	Temporary solutions to the waste water network in the eastern part of the city. This package covers fourteen different areas of work as defined on GIS.	21/11/11	13/06/2012	\$0.00	\$629,208.5 9		
10388	Richardson Clarendon Syphon	The extent of this work for this work package is the replacement of the 144 Richardson Terrace / 121	1/11/12	10/01/2013	\$473,489.00	\$0.00		

	Hagley / Ferrymead in Construction							
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Constructio n Cost	Life To Date		
10403	Barbour St Water (WS)	Replacement of water mains in two streets to the south and east of AMI Stadium, Waltham.	8/10/12	06/11/2012	\$174,742.00	\$0.00		
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	31/05/2012	\$203,962.00	\$205,013.3 2		
10459	Lower Richmond- Stanmore to Fitzgerald (WW)	Approximately 5km of WW, gravity system; requiring 2 new pump stations	20/03/12	29/01/2013	\$11,833,107	\$1,755,620 .18		
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	21/09/2012	\$3,737,683	\$1,672.77		
10481	R223 Heathcote Barrage	Minor make safe works at flood gates on Heathcote River.	13/04/12	27/04/2012	\$10,000.00	\$0.00		
10483	Lower Richmond (Southern Section) WS,SW,RD	Full reconstruction of intersection (80m), and localised repairs on remaining streets; 86m of SW replacement	27/02/12	13/09/2012	\$316,261.00	\$32,123.01		
10496	PS13 Tilford	Minor pump station repairs.	25/01/12	05/06/2012	\$5,000.00	\$7,290.37		
10539	Brittan Street	Renewal of Wastewater services for the full length of Brittan Street from Armagh Street to Woodham Road	19/03/12	21/08/2012	\$538,718.00	\$0.00		

		Hagley / Ferrymead in Con	struction			
Reference Project				Estimated Construction Finish	Estimated Construction Cost	Life To Date
10541	PS11 - Randolf		19/03/12	24/07/2012	\$4,000.00	\$0.00
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.	9/05/12	15/08/2012	\$1,078,084	\$0.00
10586	PM107		2/04/12	02/05/2012	\$325,825.00	\$1,356.32
10680	Clifton No. 4 Reservoir	Repair and retrofit of reservoir.	21/03/12	23/07/2012	\$437,673.00	\$4,385.16
10716	PM 34 Sumner - Replacement		8/02/12	17/07/2012	\$1,300,000	\$13,238.0 8
10822	McCormacks Bay Reservoir Stage 2 Walls	Retaining walls and rockfall protection works at reservoir site.	31/01/12	01/06/2012	\$1,549,159.40	\$75,229.1 4
10830	Minor Works - Bridge Minor Works Project Package 01 Roading	Minor repair to bridges requiring little design input. Project to be led by SCIRT Project Manager and Delivery teams.	15/05/12	31/07/2012	\$37,582.00	\$165.00
10853	McCormacks Bay Reservoirs - Rock Face Protection Work	Rock protection work to facilitate the repairs to the reservoir tanks	29/03/12	04/09/2012	\$1,231,910	\$466.50
10864	Woodham Road (SW,RD,WS)	Storm water and water supply elements linked to project 10356 WW & RD	3/04/12	03/08/2012	\$441,840.00	\$0.00

# 5.3.6 Lyttelton / Mt Herbert

	Lyttelton / Mt Herbert in Detailed Design					
Reference	Project	Project Description				
10399	RW Package 07 - Lyttlelton 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'.				
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. These walls are currently located within the 'white zone'.				
10818	NZTA - Norwich & Gladstone Quay State Highway Repair (RD, WW, SW, WS)	Repairs to state highway adjacent to the Port of Lyttelton				

	Lyttelton / Mt Herbert in Construction								
Reference Project		Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date			
10394	RW 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.	16/05/12	09/11/2012	\$1,482,372.00	\$0.00			
10424	Sumner Rd Retaining Wall L	Stage one of new 450m long modular block retaining wall.	27/02/12	23/10/2012	\$1,658,595.00	\$50,783.3 3			
10475	Site 079 Coleridge/Dublin St Ret. Walls	200m replacement retaining wall and road reinstatement in Lyttelton	2/07/12	12/04/2013	\$1,607,135.00	\$0.00			

# 5.3.7 Riccarton / Wigram

Riccarton / Wigram in Detailed Design				
Reference	Project	Project Description		
	*No projects in Detailed Design for this ward.			

	Riccarton / Wigram in Construction						
Reference Project Project Description		Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date		
10309	Halswell Minor Roading Works - All Areas	This project covers a range of emergency works on roading in Halswell area.	16/01/12	18/06/2012	\$547,000.00	\$222,265. 46	

# 5.3.8 Shirley / Papanui

	Shirley / Papanui in Detailed Design					
Reference	Project	Project Description				
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)				
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.				

	Shirley / Papanui in Construction								
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Constructio n Cost	Life To Date			
10313	PM6 - Harrison St	Renewal of 6 inch AC pressure main with new PE pressure main.	30/04/12	01/06/2012	\$131,117.00	\$0.00			
10344	Edgeware Road - Emergency Works	A large complex repair to a sewer trunk main in Edgeware Rd.	22/09/11	25/03/2013	\$1,734,794	\$979,876.3 8			
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	18/06/2012	\$924,505.00	\$181,392.2 3			
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.	7/11/11	23/11/2012	\$2,962,824	\$1,262,176 .21			
10535	Rutland Rd – sub catchment	Wastewater repair along a single street east of Papanui. This project area is lightly to be revised.	20/02/12	23/10/2012	\$1,556,699	\$0.00			

	Shirley / Papanui in Construction								
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Constructio n 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	19/10/2012	\$1,770,383	\$1,531.51			
10810	PS7 Catchment Phase 1 Waste Water Renewal	Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley centred upon Stapleton's Road and Shirley Road which bisect the catchment. (Area 1 of 4, south of catchment)	28/05/12	01/03/2013	\$4,521,962	\$0.00			
10851	Minor Works - Marshland Road & Belfast Road	Pavement repairs	18/04/12	12/07/2012	\$278,527.00	\$0.00			
10856	Minor Works - Northwood Block	Footpath, ramp and pavement repairs.	30/05/12	24/08/2012	\$176,033.00	\$0.00			

# **5.3.9 Spreydon / Heathcote**

	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				
10398	Summerfield Package 01 (WW,SW,RD,WS)	Repair and reconstruction of all assets within a small catchment block.				
10407	St Martins Package 02	Repair of road and all buried services within the St Martins loop, north of Centraurus Rd.				
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				

	Spreydon / Heathcote in Construction							
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction 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)	11/05/12	22/01/2013	\$3,151,988	\$0.00		
10379	Fisher Ave & Eastern Tce Syphon (WW)	Repair of Syphon near Fisher Ave	4/05/12	20/07/2012	\$455,870.00	\$0.00		
10385	Bewdley Evesham and Dellow	Repair of road and all buried services along Bewdley St, Eversham Cres & Dellow Pl.	20/04/12	31/08/2012	\$1,374,176	\$0.00		
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.	12/07/12	19/09/2012	\$135,869.00	\$0.00		
10410	Hollis Ave WW	Repair of wastewater along a section of Holliss Ave between Gunns Cres & Dentaurus Rd.	18/04/12	20/09/2012	\$643,868.00	\$0.00		
10433	PS20 Locarno	Minor pump station repairs.	25/01/12	03/07/2012	\$20,000.00	\$43,736.2 9		
10476	F207 Aynsley Tce Footbridge	Minor structural repair works	2/04/12	02/05/2012	\$40,000.00	\$0.00		
10477	F212 Sloan Tce Footbridge	Corbel addition to pre cast concrete span bridge	26/04/12	30/05/2012	\$24,229.00	\$0.00		
10821	Huntsbury Reservoir Tank No 2 & demolition	New reservoir tank (no.2) constructed in NE corner of old reservoir.	2/02/12	29/08/2012	\$3,458,765	\$145,790		

## **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	April Number of Projects	May Number of Projects	April Project Life to Date Cost	May Project Life to Date Cost
Burwood-Pegasus	74	75	\$17,493,558	\$20,050,743
Fendalton-Waimari	2	2	\$178,993	\$177,175
Central City	5	5	\$178,329	\$176,996
Hagley-Ferrymead	53	56	\$11,286,557	\$12,209,068
Lyttelton-Mt Herbert	4	5	\$39,384	\$38,936
Riccarton-Wigram	5	5	\$4,458,829	\$4,161,185
Shirley-Papanui	14	16	\$2,745,231	\$2,791,342
Spreydon-Heathcote	10	13	\$6,174,346	\$5,964,614
Total	167	177	\$42,555,227	\$45,570,059

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

# **5.4.1 List of Projects Complete By Ward**

Ward	Reference	Project	Project Life to Date Cost
Burwood-Pegasus	10312	Rowes/Tomrich Street Watermain	\$238,572
	10321	PM51 Emergency Repair	\$-
	10325	Cresswell Avenue – Water mains	\$148,362
	10327	Pembroke Street	\$146,277
	10328	De Ville Place	\$102,790
	10331	PM39 - Gayhurst Rd	\$1,513,895
	10332	PM54 - Niven-Avonside	\$372,066
	10338	Wainoni Road (WW EW - Ottawa to Avonside)	\$910,047
	10339	Woodham Road (Temp Repairs)	\$3,301,819
	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
	10364	Shortland Street	\$344,388
	10366	McBratneys Road - WM	\$ -
	10376	PM28	\$1,493,722
	10384	Pacific_Tedder Watermain Replacement	\$523,686
	10440	PS 25C	\$4,752
	10443	PM38_Beach Rd	\$585,010
	10484	Pump Station 25 connection repair	\$8,977
	10551	Avondale Rd (Temp Repair)	\$ -
	10604	PM 45	\$307,883
	10605	Sylvia Street watermain	\$130,933
	10606	Chadlington Street Water Mains	\$32,369
	10607	PM 37	\$1,858,934
	10608	PM 35	\$1,076,571
	10614	Aldershot Street watermain (WS)	\$251,874
	10615	Willryan Avenue Watermain	\$234,033
	10616	Flemington and Ascot Ave Water mains	\$520,055
	10617	PM46	\$-
	10621	Chartwell Street Water Mains	\$382,890
	10626	Bridge Street Water mains (WS)	\$203,892
	10638	630 Pages Road 450mm WW	\$1,040
	10639	23 Leaver Tce WW	\$62,858
	10640	153 Beach RD WW	\$ -
	10641	Kirner St WW	\$21,155
	10642	Cygnet St WW	\$ -

Ward	Reference	Project	Project Life to Date Cost
	10645	Inwoods Close 450mm WW	\$154,677
	10647	Travis Rd water mains and submains	\$207,294
	10649	Corhampton St water mains and submains	\$250,152
	10650	Water Main on Bridge Street Bridge (WS)	\$3,095
	10664	Saltaire (Bower to Marriots Rd) - WS	\$63,410
	10665	Sinclair (Keyes to Rawson) - WS	\$225,505
	10669	Palmers Rd PS Stabilisation	\$16,086
	10670	Major flooding Pratt St.	\$297,068
	10671	Owles Tce Temp. (WW)	\$121,354
	10676	Marine Parade Watermain	\$166,251
	10682	Briarmont St watermain	\$86,081
	10683	Cowes St Watermain and Submains (WS)	\$211,751
	10684	Gresham Terrace Watermain and Submains (WS)	\$161,016
	10685	Inverell Pl Watermain and Submains (WS)	\$61,744
	10686	Orrick St Watermain and Submains (WS)	\$79,388
	10688	Blake St Watermain (WS)	\$342,584
	10689	Pegasus Ave Watermain	\$265,788
	10690	Bassett St Watermain (WS)	\$18,141
	10691	Falcon St Watermain	\$177,003
	10692	Beach Rd Watermain	\$133,147
	10695	Allstone Watermain	\$86,065
	10696	Marriotts Road Watermain	\$ 33,179
	10700 Hulverstone Drive Emergency Repair		\$22,205
	10702	Rawhiti Water Well Stormwater Outfall	\$145,613
	10706	Bowhill Watermain (WS)	\$177,418
	10708	Rookwood Ave Watermain	\$131,073
	10711	Waitaki St Temp. Sewer	\$ -
	10713	Chartwell St Wastewater	\$ -
	10714	Kate Sheppard Emergency Repair (Barkers Lane Temp Works) (WW)	\$186,217
	10723	Merrington Cres Watermain	\$104,406
	10728	Rowan Ave Emergency Work WW	\$375,850
	10744	PS 36 Gravity Main (Pages Rd)	\$ -
	10749	Beach Rd Gravity Sewer (WW)	\$67,291
	10756	PM39 Temp Overland Pipe (PM)	\$7,764
	10794	Pratt Street (Keyes Road) Water Main from Pumping Station	\$ -
	10834 Minor Works - Stage 1 Schools		\$ -
Central City	10447	Fitzgerald Ave Temp Sewer Replacement (WW)	\$22,117
	10455	Fitzgerald Ave Twin Bridges Temp Repairs	\$ -
	10726	Stormwater Pump Station 203	\$44,916

Ward	Reference	Project	Project Life to Date Cost
	10764	PM3 Temporary Repair (Complex Emergency)	\$1,682
	10790	Liverpool Street Water Main (CBD)	\$108,280
Fendalton-Waimairi	10354	Papanui Road - Emergency Work	\$53,551
	10590	Thornycroft Street - Pri4 WM	\$123,624
Hagley-Ferrymead	10301	CCC - Tanner Street Replacement Well (WS)	\$13,299
	10319	10319 St Martins Package 01 - Project Allocation Construction	\$729,205
	10326	Retreat Road	\$623,232
	10333	PM57 - Replacement (Stage 2 March)	\$2,057,658
	10337	Avonside - WW Trunk Sewer	\$205,286
	10341	River Road - Siphon (WW)	\$655,150
	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
	10362	PS5 - Glade	\$ -
	10372	Dacre Street	\$125,471
	10386	St Andrews Hill Rd Sewer (Major Hornbrook)	\$ -
	10391	Stevens St Watermain	\$158,147
	10402	Moorhouse SW BB 02	\$72,121
	10406	226 Main Road SW	\$ -
	10411	Clifton Reservoir 3	\$307,630
	10417	Upper Balmoral Reservoir	\$355,583
	10422	PM 31 Renewal Works	\$1,222,421
	10431	PS15 Alport	\$190,146
	10434	PS12 Smith	\$20,893
	10441	Ferry Road_873	\$174,678
	10448	PM 12	\$ -
	10451	Manning-Ferry	\$13,751
	10452	WW No Service Grafton	\$134,458
	10454	225 Linwood Ave	\$63,990
	10458	31 Stanmore Road	\$44,619
	10463	Hamner Street - waste water relay	\$73,204
	10471	33 River Terrace	\$38,939
	10473	Wickham St Watermain replacement	\$292,113
	10478	F805 McCormacks Bay 1 Footbridge	\$6,544
	10479	F806 McCormacks Bay 2 Footbridge	\$4,229
	10497	PS10 Linwood WW	\$11,743
	10499	Saxon Street Waste Water	\$15,687
	10505	Stanmore Road Lateral	\$ -

Ward	Reference	Project	Project Life to Date Cost
	10537	Patten Street	\$148,514
	10609	PM 47	\$ 41,140
	10612	McCormacks Bay Reservoir No 2-2	\$536,980
	10613	Mt Pleasant Reservoir 2/2	\$95,484
	10618	Beachville Road Pressure + Gravity Main	\$461,892
	10629	McCormacks Bay Rd WR mains and submains	\$1,483,337
	10644	55 Clark St WW	\$681
	10666	Head Street - Esplanade to Nayland (WS)	\$6,925
	10677	Beachville Watermain (WS)	\$231,190
	10687	Wakefield Ave Watermain (WS)	\$60,044
	10729	WW, Gravity Bridal Path and Cannon	\$208,621
	10734	WW, 262 Main Road	\$ -
	10739	Heberden Ave Temperary Solution (WW)	\$97,178
	10743	281 River Rd Siphon (WW)	\$ -
	10746	Ruru Ave Repair PM 11	\$42,191
	10747	Bromley Waste Water Treatment	\$145,089
	10753	WW No Service Glendevere (WW)	\$2,081
	10763	Monks Bay Walkway - Temp Repairs	\$39,612
	10779	Linwood Avenue Water Main	\$413,822
	10782	15 Dunoon Place Emergency Stabilisation / Sewer Repair	\$134,348
	10792	Truro Street Emergency Waste Water Sewer Renewal (Van Asch School)	\$110,770
	10835	Minor Works - Avonside Girls High School	\$ -
Lyttelton-Mt Herbert	10382	Lyttelton Treatment Plant Access	\$ -
	10636	Priority Roads - Governors Bay Road Rebuild	\$ -
	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 (RW)	\$ -
Riccarton-Wigram	10380	Halswell WW Package 02	\$1,992,838
	10387	Townshend Crescent Wastewater	\$42,977
	10389	Sparks Rd Watermain	\$162,877
	10392	Halswell WW Package 1 (WW)	\$1,935,485
	10408	Glovers St water (WS)	\$27,008
Shirley-Papanui	10308	Riselaw Street	\$86,327
	10322	Ranfurly Street	\$117,417
	10323	Chrystal Street	\$83,645
	10329	Hope street	\$139,221
	10330	Orontes Street - WS	\$84,898

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Ward	Reference	Project	Project Life to Date Cost		
	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		
	10446	Brooklands Roading - Temporary Repairs	\$342,536		
	10460	449 Durham Street North	\$290,260		
	10555	Madras Street / Forfar Wastewater	\$574,452		
	10748	Madras / Purchas Emergency Repair (WW)	\$7,594		
	10805 Madras Street Road, Storm Water & Water Supply Repairs				
Spreydon-Heathcote	10320	Murray Aynsley Reservoir 2	\$147,149		
	10381	Rydal St (WW)	\$875,956		
	10390	Centaurus Rd Watermain	\$142,593		
	10393	Smartlea WW Emergency Repair	\$107,251		
	10396	75 Wilsons Emergency Repair	\$-		
	10397	Glenelg Spur 01	\$4,141		
	10432	PS19 Beckford	\$2,099		
	10545	PS19 - Syphon	\$ -		
	10597	Huntsbury Reservoir	\$3,926,867		
	10745	CCC - Sydenham Stn Replace Wells (WS)	\$200,907		
	10755	PS19 Fifield - 171 Fifield (PS)	\$104,829		
	10787	Rydal Street Water Supply, Storm Water and Roading Renewals (SW,WS, RD)	\$228,828		
	10315	Ferner Street - Emergency Works	\$223,995		
Grand Total			\$45,570,059		

### 6. NON-SCIRT WORK ACTIVITY

#### **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 Constructio n Start	Estimated Constructio n Finish	Estimated Cost
Banks Peninsula Wards	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
	WP0000571	PARKS 2012 Sports Fields Repairs	Repairs to sports turf 2011/12	45	Complete	01/09/2011	31/03/2012	\$496,614
Burwood Pegasus	WP0000251	PARKS CEAF 1.1 Sth New Brighton CAPEX	Hard surface and playground under surfacing renewals	8	On Hold	01/10/2011	30/06/2012	\$227,000
	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 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
	WP0000255	PARKS CEAF 1.5 Groynes CAPEX	Car Park, Driveway, Turf, Track and Jetty renewals	6	Complete	01/08/2011	30/09/2011	\$106,000
	WP0000256	PARKS CEAF 1.7 Temp Changing Rooms CAPEX	Portable changing facilities for sports parks	2	Construction	01/02/2012	31/05/2012	\$300,000
City wide	WP0000177	PARKS Playground Softfall - CAPEX	Replacement of contaminated soft fall 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

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Constructio n Start	Estimated Constructio n Finish	Estimated Cost
	WP0000269	PARKS CEAF 2.2 S/P,F/W,R/W,L/M OPEX	Hard surface and minor structural repairs	11	Construction	01/03/2012	31/05/2012	\$54,500
	WP0000312	PARKS Hard Surface Nthn & Sthn - OPEX	Hard surface repairs	58	Construction	01/03/2012	30/04/2012	\$127,950
	WP0000313	PARKS Hard Surfaces Nthn & Sthn CAPEX	Hard surface renewals	14	Construction	01/03/2012	30/04/2012	\$204,600
	WP0000318	PARKS Hard Surfaces Eastern CAPEX	Hard surface renewals	24	Construction	01/03/2012	31/05/2012	\$902,450
	WP0000321	PARKS Hard Surface Eastern - OPEX	Hard surface repairs	76	Construction	01/03/2012	31/05/2012	\$227,900
	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	Investigation	01/08/2011	30/06/2012	\$262,000
	WP0000358	PARKS Retaining Wall Repairs	Minor retaining wall repairs	26	Construction	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	Construction	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	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

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Constructio n Start	Estimated Constructio n Finish	Estimated Cost
	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	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	Construction	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
	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
Hagley Ferrymea d	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 under surfacing renewals	5	Complete	01/09/2011	29/02/2012	\$295,000

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Constructio n Start	Estimated Constructio n Finish	Estimated Cost
	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	Construction	01/10/2011	29/02/2012	\$178,499
	WP0000265	PARKS CEAF 1.8 BOT. GARDENS CAPEX	Playground under surfacing 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	Construction	01/12/2011	31/03/2012	\$187,000
Riccarton Wigram	WP0000280	PARKS CEAF 2.5 MONA VALE CAPEX	Hard surface, bridge and wall renewals	5	Investigation	xxxxx	XXXXX	\$292,000
Shirley Papanui	WP0000255	PARKS CEAF 1.5 Groynes CAPEX	Car Park, Driveway, Turf, Track and Jetty renewals	6	Complete	01/08/2011	30/09/2011	\$106,000
	WP0000256	PARKS CEAF 1.7 Temp Changing Rooms CAPEX	Portable changing facilities for sports parks	2	Construction	01/02/2012	31/05/2012	\$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	Construction	01/03/2012	31/05/2012	\$20,500
	WP0000278	PARKS CEAF 2.3 S/P CAPEX	Hard surface renewals	3	Construction	01/03/2012	31/05/2012	\$90,000

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Constructio n Start	Estimated Constructio n Finish	Estimated Cost
	WP0000778	Roto Kohatu	Repairs to bank works at Roto Kohatu Reserve	1	Complete	01/02/2011	30/04/2011	\$200,000
Spreydon Heathcote	WP0000279	PARKS CEAF 2.4 S/H OPEX	Hard surface and minor structural repairs	11	Complete	01/11/2011	31/03/2012	\$86,000
				74	Investigation		\$5,061,750	
				349	Construction		\$3,428,199	
		Chahua Cumanaanii		275	Complete		\$3,469,374	
		Status Summary		162	On Hold		\$6,389,200	
							\$18,348,523	

<sup>\*</sup>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
Clarifiers	C4 - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new structure.	Complete	Nov 11	3 Feb 12	
	C3 - New structural bottom - CIPP repairs to effluent pipe Modify Arms to suit new structure	Construction	24 Jan 12	12 June 12	
	C1 - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new Structure	Investigation	June 12	30 Sept 12	
	C2 - Verify that emergency repairs have returned asset to pre-EQ functionality and asset condition.	Investigation			+0.002.026
Civil 9 Characterists		Comotomication	O-t 11	Comb 12	\$8,982,026
Civil & Structural	Paving C2 water	Complete	Oct 11 Oct 11	Sept 12 Feb 12	
	Crack repairs to structures.	Complete Construction	April 11	Sept 12	
	Reclad Digester 2	Complete	Sept 11	Dec 11	\$3,187,259
Oxidation Ponds	Transfer structures 1-4	Complete	Oct 11	Feb 12	
	Transfer Structure 4-5.	Complete	Dec 11	Mar 12	
	Pond banks strengthen and reinstate to design levels.	Construction	Jan 12	Oct 12	
	Estuary outfall structure	Design	July 12	Sept 12	
	Cuthberts Road transfer structure	Design	Aug 12	Nov 12	\$18,122,788
Galleries	South Gallery – drainage and structural proposed repair strategy unsuccessful, redesign underway	Design	Feb 12	July 12	
	North Gallery - drainage & joints	Design	June 12	Aug 12	
	Diagonal Gallery – drainage & joints	Design	Aug 12	Sept 12	
	Pump Stn A – drainage & joints	Design	Sept 12	Oct 12	

Project	Description	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
	Sludge Rm A – drainage & joints	Design	Oct 12	Nov 12	\$1,353,550
Trickling Filters	Trickling Filter 1 Taking out of service for Investigation 20 <sup>th</sup> May	Investigation	Aug 12	Nov 12	
	Trickling Filter 2	Investigation	Nov 12	Mar 13	\$700,000
Mechanical & General Repairs	Digesters 2 Digesters 3	Construction Detailed Design	Oct 11 July 12	June 12 Sept 12	
Organics Processing Plant	Digester 4 Digester 1 Digesters 5 Digester 6 Buffer Tank Primary Sedimentation Tanks Bio- Solids Holding Tank  Demolish & Reconstruct Tunnels Repair & Strengthen Process Hall	Investigation Investigation Investigation Investigation Complete Construction Design Construction	Oct 12 Dec 12 Feb 13 April 13 Nov 11 June 11 July 12 Mar 12	Nov 12 Jan 13 Mar 13 May 13 Jan 12 July 12 Dec 12 July 13	\$4,088,195
	Repair Hard Standing				\$9,518,133
Facilities	Laboratory Control Room Workshops Offices/ Cafeteria/ Mtg Room	Investigation Investigation Investigation Investigation	Programme & Budget will follow from Investigation		
	TOTAL				\$45,951,951

### 6.4 Burwood Landfill

Project	Description	Material Received (tonnes)	Material Processed (tonnes)	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
Burwood Landfill Liquefaction and Infrastructure Rebuild Waste Disposal	Prepare areas for disposal Operate and maintain disposal site Restoration and landscaping Resource consent application Consultation documents to affected parties Consultation Feedback documents to affected parties	343,000	343,000	Completed Operation Investigation Investigation Completed Investigation	Feb 11 Feb 11  Jan 12 Jan 12 Apr 12  Jun 12	Jan 12 Dec 13 Dec 13 Jun 12 Apr 12 Jun 12	Self Funded
Burwood Landfill Residual Demolition Waste Disposal	Design of new cell for residual waste Cell construction Operate and maintain disposal site Restoration and landscaping Resource consent application Consultation documents to affected parties Consultation Feedback documents to affected parties	0	0	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  Jun 12  Apr 12  Jun 12	To be funded by Transwaste Canterbury

Project	Description	Material Received (tonnes)	Material Processed (tonnes)	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
Burwood Resource Recovery Park Demolition Sorting and Processing Facility	Construct areas for storage of material and associated roading Design of sorting plant Construction of sorting plant Sorting operation Rehabilitation and landscaping Resource consent application Consultation documents to affected parties Consultation Feedback documents to affected parties	320,000	0	Design Construction Operation Design Investigation Completed Investigation	Feb 11  Mar 11  Mar 12  Dec 12  Jul 17  Oct 11  Apr 12  Jun 12	Jun 11  Feb 12 Dec 12 Dec 17 Dec 17 Jun 12 Apr 12  Jun 12	To be funded by Transwaste Canterbury
	TOTAL	663,000	343,000				

#### 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.

	April At Ground Level	May At Ground Level	April Below Ground Level	May Below Ground Level	April Totals	May Totals
Total number of active wells					154	154
Wells yet to be repaired**	35	35	55	49	90	84
Cost Estimate all repairs <sup>+</sup>	\$4,692,000	\$4,692,000	\$17,273,000	\$17,293,000	\$21,965,000	\$21,985,000
Wells repaired to date**	67	67	71	78	138	145
Cost to date <sup>+</sup>	\$2,501,045	\$2,613,668	\$3,695,897	\$4,366,708	\$6,196,942	\$6,980,376

<sup>+</sup> includes replacement wells

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

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