

8. INFRASTRUCTURE REBUILD MONTHLY REPORT

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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 1**) is the 7th 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 April 2012.

Stronger Christchurch

Infrastructure Rebuild

INFRASTRUCTURE REBUILD PROGRESS REPORT APRIL 2012

Project funded by

Christchurch
City Council 

New Zealand Government

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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

The ramp up of rebuild activity has continued to increase in March. The SCIRT team has created a fifth design team (with approximately 40 additional staff) to increase the number of projects in design. This is to ensure there is sufficient work in progress in the delivery teams. The ramp up is reflected in section 5.2 which shows an increase of the number of SCIRT projects in the various stages of delivery. Good progress is continuing to be made on the delivery of non-SCIRT infrastructure rebuild related work.

The SCIRT prioritised 18 month delivery programme and associated cashflow forecast is being finalised with the aim to be able to start communicating the prioritisation process and programme externally in May/June. The client organisations are jointly working on a communications plan to articulate the programme externally.

There is ongoing work with the three client organisations to ensure the necessary funding approvals are in place for the next financial year. Significant progress in this area has been made in March. With the increase in rebuild activities there are a number of associated challenges including resourcing, traffic management and communications. These have all been identified by the rebuild team and appropriate strategies are being put in place to deal with them.

The good work being done with regards to community engagement and communication is being reflected in feedback received from community meetings, elected members and quarterly independent face-to-face market research. The results of the survey are shown in Section 3.

As the ramp up continues to build, pressure on the teams to deliver best outcomes will challenge our mindsets, values and behaviours and there is focus on ensuring that 'collectively we are stronger'. All parties continuing to work collaboratively to a common goal will be key over the next few months.

3. COMMUNICATION AND COMMUNITY ENGAGEMENT

Two public meetings were held by SCIRT during March in Lyttelton about the rebuilding of publicly owned retaining walls. The meetings were coordinated in consultation with the local Community Board and were well-attended.

SCIRT and Council staff are planning another round of visits to all Community Boards in coming weeks to update on progress and outline where the organisations involved are at with preparing the forward schedule of works for the infrastructure rebuild.

Communications are being prepared around the upcoming release of the forward schedule of works for SCIRT and this is expected to generate significant community and media interest. It is also noted that as more work begins to roll-out, traffic management around the city is going to be a key issue and communications will need to focus on this.

SCIRT is continuing with market research to gauge resident satisfaction with construction and communication methods and findings were received in March from a telephone survey and face-to-face surveys in areas where work is underway. The results from the quarterly independent face-to-face market research undertaken in areas where we have finished working were very positive as seen in the table below.

	October 2011	February 2012
Satisfaction with <i>comprehensiveness</i> of communication	67%	80%
Satisfaction with <i>accuracy</i> of communication	68%	81%
Satisfaction with <i>timeliness</i> of communication	69%	82%
<i>Overall</i> satisfaction with communication (separate question)	68%	85%

In order to promote better understanding of the rebuild community-wide, SCIRT has translated information sheets into Chinese, Korean and Samoan. These are available from all service centres. The pamphlets generated positive media attention, as did a media release about work along the inner Lyttelton Harbour roads.

Other Key Outcomes for March:

- A television news item was prepared in March and aired on Close Up on the 11th April. This highlighted SCIRT's campaign to promote safety around road works in the context of the wider work that is underway around the city.
- The Client Liaison Protocol for SCIRT has been revised and is being presented to the Client Governance Group. The updated protocol will promote a highly collaborative relationship between SCIRT and our clients.
- SCIRT information appeared in the CERA monthly supplement and the Council 'Our Christchurch' advertisement in March, helping to increase public visibility of our work.
- In March, SCIRT issued:
 - Start work notices - 57
 - E-newsletters - 4
 - Meetings/briefings - 12
 - Face-to-face discussions - 201
 - Media articles - 3
 - Advertisements – 3

Upcoming priorities/targets for coming months:

- The ramp up in work around the city requires some strategic, coordinated key messaging about traffic management. SCIRT communication team is working with the Strategic Routes Group to develop key messages to help prepare people for the intensity of the programme and as a call to action for the people of Christchurch to do their bit to plan ahead to manage their journeys. We will need to consider radio advertising to assist with this messaging.

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 \$1,777k.

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 March 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 works components.

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

The Physical Works component includes costs associated with the physical construction of over 150 projects that are in the process of being completed and handed over, at which point they will move into the relevant activity.

As at the end of March 2012 the spend for 2011/12 is forecast to be \$4.3M 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 currently no budget against EQ Parking, however the project has been approved by Council and budget is currently being allocated.

Table 1.0 Actual Year to Date Cost Against Budget

FINANCE AS AT 31 MARCH 2012					
Activity	Description	2011/12 Approved Budget	Actual Cost YTD	Forecast Total Spend This Year	Year End Variance
Parks & Open Spaces	Greenspace	\$ 6,500,000	\$ 1,015,048	\$ -	-
Refuse Minimisation & Disposal	Solid Waste	\$ 6,900,000	\$ 186,676	\$ -	-
Road Network	Roading	\$ 102,700,000	\$ 451,637	\$ -	-
Wastewater Collection		\$ 67,100,000	\$ 13,526,295	\$ -	-
Wastewater Treatment & Disposal	WW Treatment Plant	\$ 69,300,000	\$ 5,261,615	\$ -	-
Water Supply	Water Supply	\$ 14,200,000	\$ 1,123,101	\$ -	-
Waterways & Land Drainage	Stormwater	\$ 16,800,000	\$ 16,916,205	\$ -	-
Works in Progress and set up costs					
Non Physical works		\$ -	\$ 71,499,794	\$ -	-
Physical works		\$ -	\$ 100,261,477	\$ -	-
Total Work in Progress and set up costs		\$ -	\$ 171,761,271	\$ -	\$ -
TOTAL INFRASTRUCTURE REBUILD PROGRAMME		\$ 283,500,000	\$ 210,241,847	\$ 287,360,828	-\$ 3,860,828
Other					
Auckland CC Parks Donation	Greenspace	\$ 931,800	\$ 359,783	\$ 455,000	\$ 476,800
Road Network	EQ Public Transport	\$ 827,400	\$ 804,679	\$ 806,679	\$ 20,721
	EQ Parking	\$ -	\$ 972,335	\$ 987,335	-\$ 987,335
Total Other		\$ 1,759,200	\$ 2,136,797	\$ 2,249,014	-\$ 489,814
GRAND TOTAL		\$ 285,259,200	\$ 212,378,645	\$ 289,609,842	-\$ 4,350,642

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.

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, concept and detailed design and programme set up cost and overhead. These will be apportioned across the whole programme of the rebuild.

The Physical Works component includes costs associated with the physical construction of over 150 projects that are in the process of being completed and handed over, at which point they will move into the relevant activity.

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

Table 2.0 Actual Life to Date Costs Against Current Infrastructure Rebuild Budget

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	\$ 56,952,381	\$ 493,384	\$ 16,959	\$ 510,343	\$ 56,952,381	\$ -
Refuse Minimisation & Disposal	Solid Waste	\$ 8,761,905	\$ 2,063,215	\$ 210,560	\$ 2,273,775	\$ 8,761,905	\$ -
Road Network	Roading	\$ 892,619,048	\$ 819,488	\$ 436,773	\$ 1,256,260	\$ 892,619,048	\$ -
Wastewater Collection		\$ 714,095,238	\$ 1,484,834	\$ 20,664,085	\$ 22,148,919	\$ 714,095,238	\$ -
Wastewater Treatment & Disposal	WW Treatment Plant	\$ 79,952,381	\$ 4,488,038	\$ 4,313,789	\$ 8,801,828	\$ 79,952,381	\$ -
Water Supply	Water Supply	\$ 152,238,095	\$ 4,105,579	\$ 917,363	\$ 5,022,942	\$ 152,238,095	\$ -
Waterways & Land Drainage	Stormwater	\$ 110,619,048	\$ -	\$ 12,000,000	\$ 12,000,000	\$ 110,619,048	\$ -
Works in Progress and set up costs	Non Physical works		\$ 25,004,416	\$ 50,531,566	\$ 75,535,981	\$ -	\$ -
	Physical works			\$ 101,057,247	\$ 101,057,247	\$ -	\$ -
TOTAL		\$ 2,015,238,095	\$ 38,458,955	\$ 190,148,341	\$ 228,607,296	\$ 2,015,238,095	\$ -
Other							
Auckland CC Parks Donation	Greenspace	\$ 931,800	\$ -	\$ 719,442	\$ 719,442	\$ 931,800	\$ -
Road Network	EQ Public Transport	\$ 827,400	\$ -	\$ 804,679	\$ 804,679	\$ 827,400	\$ -
	EQ Parking	\$ -	\$ -	\$ 972,335	\$ 972,335	\$ -	\$ -
		\$ 1,759,200	\$ -	\$ 2,496,456	\$ 2,496,456	\$ 1,759,200	\$ -
TOTAL		\$ 2,016,997,295	\$ 38,458,955	\$ 192,644,797	\$ 231,103,752	\$ 2,016,997,295	\$ -

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.

ATTACHMENT 1 TO CLAUSE 8 COUNCIL 19.4.2012

Asset Type	Asset Sub-Type	Unit	SCIRT#	SCIRT Name	November	December	January	February	March	Grand Total
Transport - Roading	Pavement	m2			240	9,855	918	4,396	1,140	16,549
	Retaining Walls	%	10424	Sumner Rd Retaining Wall L			3%	30%	3%	36%
			10445	Fitzgerald Ave Wall and Roading	33%	17%	20%	11%	29%	110%
			10763	Monks Bay Walkway - Temp Repairs		95%				95%
			10822	McCormacks Bay Reservoir Stage 2 Walls			5%	1%	3%	10%
			10821	Huntsbury Reservoir Tank No 2 & demolition				1%		1%
Waste Water Pump Stations	Pump Station	%	10361	PS54 Catchment Temp. Solutions		160%	60%	139%	15%	374%
			10728	Rowan Ave Emergency Work WW	0					0
Waste Water Reticulation	Gravity	m			443	2,240	1,753	2,980	1,262	8,678
	Pressure System	m			456	610	535	598	30	2,229
	Siphon System	m						32		32
Water Supply Pump & Reservoir Stations	Pump Station	%	10361	PS54 Catchment Temp. Solutions			0			0
			10597	Huntsbury Reservoir	20%					20%
	Reservoir	%	10411	Clifton Reservoir 3	30%	4%				34%
			10417	Upper Balmoral Reservoir	5%	17%				22%
			10597	Huntsbury Reservoir	25%	12%				37%
			10607	PM 37		0				0
			10612	McCormacks Bay Reservoir No 2-2	28%	100%				128%
			10821	Huntsbury Reservoir Tank No 2 & demolition				10%	4%	14%
Water Supply Reticulation	Mains	m			3,284	1,334	563	266	420	5,867
	Pipes	m			2,063	675	64	102	450	3,354

5.2 Number of Ongoing SCIRT Projects

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

Project Lifecycle Stage	March Estimate	April Estimate	March Estimated Construction Cost	Estimated Construction Cost
Investigation (Asset Assessment)	1	2	\$2,500,000	\$2,625,000
Concept Design	79	67	\$384,073,324	\$430,847,516
Detailed Design	56	88	\$148,188,227	\$228,075,779
Construction	60	66	\$63,158,038	\$80,750,306
Handover	150	152	\$54,154,865	\$54,854,566
Grand Total	346	375	\$652,074,454	\$797,153,167

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 March 2012.

5.3.2 Burwood / Pegasus

Burwood / Pegasus in Detailed Design		
Reference	Project	Project Description
10318	PS37 North Catchment (WW)	Wastewater repairs and renewal for northern half of PS37 catchment. Includes one new pump station and approximately 100 pressure sewer pumps.
10416	PS37	Repairs to existing PS37, including new pump intakes and repairs to yards.
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.
10430	PS28 - Catchment	PS 28 catchment services residential and industrial land loosely bounded by Pages Rd, Cuffs Rd, Wainoni Rd and Shortland St in the suburb of Wainoni. Other pockets of land are also serviced including 650 m of Wainoni Rd north of Shortland St and 240 m of Breezes Rd, an area west of Wainoni Rd including a portion of Avonside Dr, Newport St, Tenby Pl and Emlyn Pl, 350 m of Wainoni Rd south of Cuffs Rd and an area south of Pages Rd including Price Pl, 180 m of Kearneys Rd and Mecca Pl. The seismic events caused liquefaction and land settlement throughout the catchment. The pump station is still operational and in a serviceable state. The majority of the network suffered either loss of grade, cracks and breakages or a combination of the two. Therefore a significant proportion, if not all, of the network will need to be replaced.
10553	Avondale Road (Bridge Works)	Retrofit repair to bridge involving new abutments, piles, wingwalls and associated road approaches and services.
10557	Gayhurst Road Roothing (RD)	Design for road reconstruction to repair moderate to severe earthquake damage to carriageway, kerb and channel, and footpaths from Dallington Bridge northwards to Mundys Road. This project will become part of PS108 Catchment Phase 1 Roothing, Storm Water and Water Supply. This work follows wastewater repairs/replacement.
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.
10694	PS36 Renewal (WW)	New PS36 to replace existing PS36. New station capacity approximately 900 L/S.

Burwood / Pegasus in Detailed Design		
Reference	Project	Project Description
10724	Bridge St bridge and approaches	Replace damaged bridge abutments and approaches with new structure including road works and services reinstatement.
10769	CCC - Keyes Pumping Station (WS)	CCC capital works programme rebuilding project for the Keyes Water Pumping Station. Initial design was carried out by CPG, and URS are also involved with the geotechnical investigation and report.
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.
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.
10833	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
10840	PS37 Catchment RD SW WS	Linked to Project 10318 WW for the RD WS and SW elements

Burwood / Pegasus in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10312	Rowes/Tomrich Street Watermain	Replacement of water mains within two minor suburban streets in north Bromley.	21/03/2012	23/05/2012	\$263,863	\$238,572
10314	Keyes Road Catchment (WW)	Repair and/or reinstatement of wastewater system.	12/03/2012	06/12/2012	\$4,433,111	\$561
10335	PS54 - Catchment	A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.	01/06/2011	20/07/2012	\$10,893,000	\$4,448,334
10349	PS39 - Birchfield Avenue WW EW	Emergency Works at the waste water pumping station in Dallington.	13/10/2011	13/08/2012	\$129,500	\$41,880

Burwood / Pegasus in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10363	PS108 Catchment (old PS39 Catchment)	A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.	14/11/2011	19/10/2012	\$5,187,910	\$1,230,498
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.	26/09/2011	19/03/2012	\$2,110,000	\$863,044
10532	Cnr Pages & Cuff - Emergency Repair	A large waste water renewal to a section of gravity pipe in Pages Rd.	30/01/2012	26/04/2012	\$945,238	\$108,611
10576	PM106 - Woolley	A small simple sewer pressure main being constructed in Woolley St to service a modified sewer catchment in Avondale.	30/01/2012	26/03/2012	\$124,770	\$0
10607	PM 37	Installing a new PE pressure main from PS37 to Mountbatten Street due to concrete pressure main being damaged beyond repair.	03/08/2011	10/04/2012	\$1,372,710	\$1,865,226
10651	Keyes Rd Watermain (WS)	Watermain renewal in Keyes Road between Pratt Street and Hawke Street.	21/02/2012	03/05/2012	\$168,994	\$22,289
10681	Bower Avenue Watermain and Submains (WS)		27/02/2012	24/04/2012	\$322,458	\$0
10706	Bowhill Watermain (WS)	Replacement of the existing 150mm dia AC watermain in Bowhill Road with a 180 mm diameter PE pipe, between Grantley Street and Keyes Road. The work also includes connections to existing watermains and the removal of redundant fittings.	16/01/2012	26/03/2012	\$105,306	\$177,667

Burwood / Pegasus in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10752	Desal plant long term storage		15/11/2011	27/04/2012	\$0	\$61,768
10708	Rookwood Ave Watermain	Repair or replacement of water supply assets along a main road in North New Brighton.	27/01/2012	16/05/2012	\$322,545	\$135,030
10789	Woodham Road Water Supply Pumping Line Renewal	A small watermain replacement in Wainoni.	26/01/2012	15/05/2012	\$106,585	\$35,092

5.3.3 Fendalton / Waimari

Fendalton / Waimari in Detailed Design		
Reference	Project	Project Description
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
10485	Merivale WW	Approximately 9km of WW gravity system, one new pump station.

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	06/03/2012	30/03/2012	\$27,385	\$0
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. The seismic events caused some liquefaction and land settlement in parts of the sub- catchment. 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.	21/03/2012	10/07/2013	\$4,795,898	\$150

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
10482	Triumphal Arch	All works related to the permanent repair work. Project is in CBD and a heritage structure. Current time frame has construction of permanent repairs commencing in June 2012.

Central City in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10445	Fitzgerald Ave Wall and Roothing	The works include the replacement of a failed retaining wall and carriageway. Ground stabilization is also being installed with stone columns 12 meters deep.	07/02/2012	05/12/2012	\$3,130,000	\$2,796,417

5.3.5 Hagley / Ferrymead (*excludes central city)

Hagley / Ferrymead in Detailed Design		
Reference	Project	Project Description
10303	Site 229 Mt Pleasant Rd Retaining Wall (RW)	60m replacement retaining wall and road reinstatement, in Mt Pleasant
10306	CCC - PM11 Randolph (WW)	3.6km, 1.2m dia WW pressure main
10307	173 Maffey's Road retaining wall	Repair of retaining wall in Maffey's Rd, along with associated buried services
10347	Gayhurst Rd (Bridge Works - EW)	Retrofit repair to bridge involving new abutments, piles, wingwalls and associated road approaches and services.
10428	RW Mt Pleasant Rd Wall #156	Design a replacement retaining wall to support a section of Mt Pleasant Road. The existing wall is constructed from gabion baskets and is not of heritage value
10450	Riley Crescent	Provision of a permanent pressure sewer or enhanced gravity system to replace damaged WW reticulation
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 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.
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.
10770	Linwood Ave / Humphrys Dr Retaining Wall Emergency (Permanent) Repairs (RW)	8m replacement and 8m extension of retaining wall at the City outfall drain to the estuary.
10797	NZTA Heathcote/Opawa Bridge Repairs	Ground improvements, and underpinning and lifting (jacking) of the abutments
10798	NZTA Port Hills Overpass Bridges	Pier column refinement, subject to ground investigation results
10799	NZTA Horotane Overpass Bridges	Propping system between piers, subject to ground investigation results
10841	Charleston Catchment RD SW WS	Linked to Project 10472 WW for the RD SW and WS elements
10843	Lower Richmond Catchment RD SW WS	Linked to #10459 for the RD SW and WS elements of the project

Hagley / Ferrymead in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10317	Heberden Ave Permanent Solution (WW)	New gravity sewer diversion to replace broken sewer down Scarborough Cliffs.	22/03/2012	28/05/2012	\$256,733	\$166,962
10339	Woodham Road (Temp Repairs)	A large complex repair to a sewer trunk main in Woodham Rd.	15/09/2011	02/04/2012	\$3,500,000	\$3,301,819

Hagley / Ferrymead in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
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.	14/11/2011	22/06/2012	\$3,095,185	\$1,270,654
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.	23/11/2011	07/05/2012	\$124,548	\$125,199
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.	21/11/2011	26/03/2012	\$0	\$629,209
10386	St Andrews Hill Rd Sewer (Major Hornbrook)	Emergency repair of stormwater and ww sewer lines between manhole and 22394 and 22393	29/03/2012	20/04/2012	\$65,380	\$0
10388	Richardson Clarendon Syphon	The extent of this work for this work package is the replacement of the 144 Richardson Terrace / 121	27/02/2012	24/04/2012	\$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.	23/02/2012	05/06/2012	\$174,742	\$0
10411	Clifton Reservoir 3	Work is undertaken to prop the roof, fibre wrap and repair the column, jack up roof, reseal all floor joints. A new concrete beam at wall/roof junction, fabric roof ceremony.	28/09/2011	30/03/2012	\$227,000	\$323,430

Hagley / Ferrymead in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10417	Upper Balmoral Reservoir	Upgrading reservoir to 100% of code; fibre wrap column, new internal concrete beam to the wall and external beam at wall roof junction, fabric roof.	05/09/2011	28/03/2012	\$309,000	\$369,707
10422	PM 31 Renewal Works	Between 8 and 202 Main Road, Redcliffs a Sewer Gravity Main renewal is required due to the existing main suffering extensive damage.	13/10/2011	19/03/2012	\$939,748	\$1,229,633
10434	PS12 Smith	Minor pump station repairs.	31/01/2012	20/04/2012	\$15,000	\$20,893
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.	01/11/2011	14/03/2012	\$203,962	\$206,194
10459	Lower Richmond-Stanmore to Fitzgerald (WW)	Approximately 5km of WW, gravity system; requiring 2 new pump stations	20/03/2012	29/01/2013	\$11,833,107	\$1,757,180
10472	Charleston	Approx 2.9km WW enhanced gravity system, 1 new pump station; 0.3km SW; 8600m2 carriageway reconstruction, and 1830m2 localised repairs	22/03/2012	29/11/2012	\$3,737,683	\$3,735
10478	F805 McCormacks Bay 1 Footbridge	Minor repairs to a footbridge in McCormacks Bay below Mt Pleasant.	08/12/2011	26/03/2012	\$30,000	\$6,544
10479	F806 McCormacks Bay 2 Footbridge	Minor repairs to a footbridge in McCormacks Bay below Mt Pleasant.	30/01/2012	16/05/2012	\$10,000	\$4,229
10481	R223 Heathcote Barrage	Minor make safe works at flood gates on Heathcote River.	05/03/2012	28/03/2012	\$10,000	\$0
10483	Lower Richmond (Southern Section) WS,SW,RD	Full reconstruction of intersection (80m), and localised repairs on remaining streets; 86m of SW replacement	06/03/2012	29/01/2013	\$316,261	\$38,753

Hagley / Ferrymead in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10496	PS13 Tilford	Minor pump station repairs.	30/01/2012	29/03/2012	\$5,000	\$7,290
10497	PS10 Linwood WW	Minor pump station repairs.	23/01/2012	28/03/2012	\$20,000	\$11,743
10537	Patten Street	A small diameter waste water renewal project along Patten St in Linwood.	02/12/2011	17/04/2012	\$707,722	\$148,514
10539	Brittan Street	Renewal of Wastewater services for the full length of Brittan Street from Armagh Street to Woodham Road	19/03/2012	01/06/2012	\$538,718	\$0
10541	PS11 - Randolf		10/02/2012	22/03/2012	\$4,000	\$80
10586	PM107		21/02/2012	26/04/2012	\$325,825	\$1,356
10612	McCormacks Bay Reservoir No 2-2	54 Glenstrae Road, earthquake in February damaged 5000m3 reservoir, existing floor cracked and tank leaked. Upgrading reservoir to 67% of code by installing new floor and ring beam.	16/11/2011	28/03/2012	\$6,600,000	\$563,581
10666	Head Street - Esplanade to Nayland (WS)	Watermain renewal in Keyes Road between Esplanade and Nayland.	08/03/2012	02/04/2012	\$90,340	\$6,925
10687	Wakefield Ave Watermain (WS)	Watermain renewal along Wakefield Avenue, Sumner, between Colenso Street and Arnold Street.	12/12/2011	19/03/2012	\$76,824	\$60,044
10716	PM 34 Sumner - Replacement		15/02/2012	28/05/2012	\$1,300,000	\$13,238
10792	Truro Street Emergency Waste Water Sewer Renewal (Van Asch School)	Repair of wastewater pipeline through Van Ash School Sumner	10/01/2012	27/03/2012	\$264,929	\$113,605

5.3.6 Lyttelton / Mt Herbert

Lyttelton / Mt Herbert in Detailed Design		
Reference	Project	Project Description
10399	RW Package 07 - Lyttelton Stone	Design three replacement retaining walls on London Street, St Davids Street and Ticehurst Road, Lyttelton. The walls are up to 4m high and are of high heritage value.
10400	RW Package 08 - Lyttelton non-stone	Design five replacement retaining walls on London Street, Canterbury Street, Hawkhurst Road and Ticehurst Road. Sections of these walls are of high heritage value.
10427	035 Cunningham Tce retaining wall (RW)	Repair of retaining wall in Cunningham Tce, along with associated buried services
10511	RW Package 06 - Selwyn and Ross	Design five retaining walls on Selwyn Road and Ross Terrace, Lyttelton. The walls range in height from 1.5m to 3m, and are of high heritage value.

Lyttelton / Mt Herbert in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10424	Sumner Rd Retaining Wall L	Stage one of new 450m long modular block retaining wall.	02/03/2012	12/09/2012	\$1,642,570	\$52,423
10636	Priority Roads - Governors Bay Road Rebuild	Make safe, Road patching job along Governors Bay Road	05/03/2012	17/04/2012	\$182,633	\$0

5.3.7 Riccarton / Wigram

Riccarton / Wigram in Detailed Design		
Reference	Project	Project Description
10383	PS73 Kennedys Bush	Repair of wastewater PS 73
10409	Halswell WW Package 03	Repair wastewater along a section of Halswell Rd, O'Halloran Dr, & within private properties behind Muir Ave.

Riccarton / Wigram in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10309	Halswell Minor Roothing Works - All Areas	This project covers a range of emergency works on roading in Halswell area.	16/01/2012	23/03/2012	\$547,000	\$244,305

5.3.8 Shirley / Papanui

Shirley / Papanui in Detailed Design		
Reference	Project	Project Description
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)
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)
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)
10852	Minor Works - Casebrook Block	Minor footpath, and pavement repairs

Shirley / Papanui in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10313	PM6 - Harrison St	Renewal of 6 inch AC pressure main with new PE pressure main.	03/04/2012	18/04/2012	\$131,117	\$0
10344	Edgware Road - Emergency Works	A large complex repair to a sewer trunk main in Edgware Rd.	22/09/2011	11/07/2012	\$1,734,794	\$980,196
10535	Rutland Rd - subcatchment	Wastewater repair along a single street east of Papanui. This project area is lightly to be revised.	21/02/2012	01/08/2012	\$1,556,699	\$875

Shirley / Papanui in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10536	Edgware 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 Edgware 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.	06/03/2012	20/07/2012	\$1,770,383	\$3,005
10805	Madras Street Road, Storm Water & Water Supply Repairs	Design for repair of minor/moderate earthquake damage to carriageway, kerb and channel, and footpaths in Madras and Forfar Streets between Edgware Rd and Warrington St. Carriageway work consists of isolated dig out repairs and a surface rip and remake. This work will follow construction of wastewater repairs/replacement which has just commenced.	27/02/2012	02/05/2012	\$197,367	\$4,884

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
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)
10379	Fisher Ave & Eastern Tce Syphon (WW)	Repair of Syphon near Fisher Ave
10407	St Martins Package 02	Repair of road and all buried services within the St Martins loop, north of Centaurus Rd.
10829	CCC - Victoria Reservoir Replacement (WS)	Victoria reservoir is being replaced by SCIRT and funded by CCC. Maximum total budget is \$400,000 - including ALL design, etc. The existing wooden tanks may be able to be sold and the money added to the budget.

Spreydon / Heathcote in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10319	10319 St Martins Package 01 - Project Allocation Construction	Replacement renewal and repair of selected wastewater mains and laterals along partial extents of Wilsons Road South, St Martins Road and Gamblins Road in the St Martins suburb.	05/12/2011	04/04/2012	\$1,403,507	\$730,465
10320	Murray Aynsley Reservoir 2	Repairs to the roof and repair of spalled concrete at the reservoir, and associated repairs to the watermain at the site.	08/08/2011	22/02/2012	\$150,000	\$148,903

Spreydon / Heathcote in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10397	Glenelg Spur 01	Repair of road and all buried services in a group of streets near Somerfield. Replacement of ww line from Glenelg spur to Centaurus Rd	27/02/2012	23/03/2012	\$103,236	\$4,141
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.	18/06/2012	07/09/2012	\$135,869	\$160
10432	PS19 Beckford	Minor pump station repairs.	13/12/2011	13/03/2012	\$3,000	\$2,099
10433	PS20 Locarno	Minor pump station repairs.	31/01/2012	19/04/2012	\$20,000	\$43,736
10477	F212 Sloan Tce Footbridge	Corbel addition to pre cast concrete span bridge	30/01/2012	28/03/2012	\$24,229	\$0
10787	Rydal Street Water Supply, Storm Water and Roding Renewals (SW,WS, RD)	Replacement of water and storm water supply along Rydal St and respective roding renewals	16/01/2012	02/04/2012	\$375,349	\$231,040

5.4 Projects Complete By Ward

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

Ward	March Number of Projects	April Number of Projects	March Project Life to Date Cost	April Project Life to Date Cost
Burwood-Pegasus	72	72	\$14,231,607	\$14,728,048
Fendalton-Waimairi	2	2	\$60,309	\$177,175
Central City	5	5	\$177,543	\$176,996
Hagley-Ferrymead	41	43	\$7,840,139	\$8,791,597
Lyttelton-Mt Herbert	4	4	\$38,936	\$38,936
Riccarton-Wigram	4	5	\$4,065,545	\$4,190,819
Shirley-Papanui	15	15	\$3,110,820	\$2,735,222
Spreydon-Heathcote	7	7	\$5,203,951	\$5,459,115
Total	150	153	\$34,728,850	\$36,297,908

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	10321	PM51 Emergency Repair	\$-
	10325	Cresswell Avenue - Watermains	\$148,362
	10327	Pembroke Street	\$146,277
	10328	De Ville Place	\$102,790
	10331	PM39 - Gayhurst Rd	\$1,512,493
	10332	PM54 - Niven-Avonside	\$372,066
	10338	Wainoni Road (WW EW - Ottawa to Avonside)	\$910,047
	10340	Ottawa Road Sewer Emergency Repair	\$517,444
	10342	Avondale Road (Bridge Emergency Works)	\$-
	10343	PM16 - Oakmont Green	\$4,287
	10346	Fleete Street - Emergency Repair	\$9,243
	10351	Ardrossan Street - Temp. Solution	\$347,571
	10355	Landy Street	\$14,733
	10359	PS54 - Niven St	\$62,282

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10364	Shortland Street	\$342,893
10366	McBratneys Road - WM	\$-
10376	PM28	\$1,496,219
10384	Pacific_Tedder Watermain Replacement	\$523,816
10440	PS 25	\$4,752
10443	PM38_Beach Rd	\$585,010
10484	Pump Station 25 connection repair	\$8,977
10551	Avondale Rd (Temp Repair)	\$-
10604	PM 45	\$316,058
10605	Sylvia Street watermain	\$140,884
10606	Chadlington Street Water Mains	\$43,203
10608	PM 35	\$1,076,737
10614	Aldershot Street watermain (WS)	\$252,262
10615	Willryan Avenue Watermain	\$284,876
10616	Flemington and Ascot Ave Watermains	\$518,666
10617	PM46	\$-
10621	Chartwell Street Water Mains	\$381,866
10626	Bridge Street Watermains (WS)	\$233,805
10638	630 Pages Road 450mm WW	\$1,040
10639	23 Leaver Tce WW	\$62,858
10640	153 Beach RD WW	\$-
10641	Kirner St WW	\$21,896
10642	Cygnets St WW	\$-
10645	Inwoods Close 450mm WW	\$155,767
10647	Travis Rd watermains and submains	\$214,862
10649	Corhampton St watermains and submains	\$203,087
10650	Water Main on Bridge Street Bridge (WS)	\$2,571
10664	Saltaire (Bower to Marriots Rd) - WS	\$62,000
10665	Sinclair (Keyes to Rawson) - WS	\$190,262
10669	Palmer's Rd PS Stabilisation	\$16,812
10670	Major flooding Pratt St.	\$296,942
10671	Owles Tce Temp. (WW)	\$123,187
10676	Marine Parade Watermain	\$175,651
10682	Briarmont St watermain	\$104,559
10683	Cowes St Watermain and Submains (WS)	\$201,746
10684	Gresham Terrace Watermain and Submains (WS)	\$32,675
10685	Inverell Pl Watermain and Submains (WS)	\$56,115
10686	Orrick St Watermain and Submains (WS)	\$50,508
10688	Blake St Watermain (WS)	\$296,775
10689	Pegasus Ave Watermain	\$262,251
10690	Bassett St Watermain (WS)	\$17,355
10691	Falcon St Watermain	\$284,562
10692	Beach Rd Watermain	\$132,569

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	10695	Allstone Watermain	\$95,911
	10696	Marriotts Road Watermain	\$33,968
	10700	Hulverstone Drive Emergency Repair	\$21,482
	10702	Rawhiti Water Well Stormwater Outfall	\$158,364
	10711	Waitaki St Temp. Sewer	\$-
	10713	Chartwell St Wastewater	\$-
	10714	Kate Sheppard emergency repair (Barkers Ln Temp. WW)	\$119,456
	10723	Merrington Cres Watermain	\$102,562
	10728	Rowan Ave Emergency Work WW	\$194,874
	10744	PS 36 Gravity Main (Pages Rd)	\$-
	10749	Beach Rd Gravity Sewer (WW)	\$67,291
	10752	Desal plant long term storage	\$55,969
	10755	PS19 Fifield - 171 Fifield (PS)	\$50,298
	10756	PM39 Temp Overland Pipe (PM)	\$7,764
	10794	Pratt Street (Keyes Road) Water Main from Pumping Station	\$-
Fendalton-Waimairi	10354	Papanui Road - Emergency Work	\$53,551
	10590	Thornycroft Street - Pri4 WM	\$123,624
Central City	10447	Fitzgerald Ave Temp Sewer replacement	\$22,117
	10455	Fitzgerald Ave Twin Bridges Temp Repairs	\$0
	10726	Stormwater Pump Station 203	\$44,916
	10764	PM3 Temporary Repair (Complex Emergency)	\$1,682
	10790	Liverpool Street Water Main (CBD)	\$108,280
Hagley-Ferrymead	10301	CCC - Tanner Street Replacement Well (WS)	\$15,792
	10326	Retreat Road	\$678,983
	10333	PM57 - Replacement (Stage 2 March)	\$2,064,116
	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
	10360	Eveleyn Couzins Ave - Temp. Solutions	\$0
	10362	PS5 - Glade	\$0
	10372	Dacre Street	\$125,471
	10391	Stevens St Watermain	\$163,942
	10402	Moorhouse SW BB 02	\$72,458
	10406	226 Main Road SW	\$0
	10431	PS15 Alport	\$190,146
	10441	Ferry Road_873	\$174,678

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	10448	PM 12	\$0
	10451	Manning-Ferry	\$13,751
	10452	WW No Service Grafton	\$134,458
	10454	225 Linwood Ave	\$67,795
	10458	31 Stanmore Road	\$47,109
	10463	Hamner Street - waste water relay	\$73,204
	10471	33 River Terrace	\$38,939
	10473	Wickham St Watermain replacement	\$303,003
	10499	Saxon Street Waste Water	\$15,687
	10505	Stanmore Road Lateral	\$0
	10545	PS19 - Syphon	\$0
	10609	PM 47	-\$41,140
	10613	Mt Pleasant Reservoir 2/2	\$95,484
	10618	Beachville Road Pressure + Gravity Main	\$463,732
	10629	McCormacks Bay Rd WR mains and submains	\$1,487,492
	10644	55 Clark St WW	\$792
	10677	Beachville Watermain (WS)	\$232,696
	10729	WW, Gravity Bridal Path and Cannon	\$216,999
	10734	WW, 262 Main Road	\$0
	10739	Heberden Ave Temporary Soution (WW)	\$97,178
	10743	281 River Rd Siphon (WW)	\$0
	10746	Ruru Ave Repair PM 11	\$42,191
	10747	Bromley Waste Water Treatment	\$145,089
	10753	WW No Service Glendever (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
Lyttelton-Mt Herbert	10382	Lyttelton Treatment Plant Access	\$0
	10672	Sutton Quay Retaining wall 441	\$38,936
	10732	Flat land at base on hill along Main Road - WW	\$0
	10784	Canterbury Street Retaining Wall - Emergency Temporary Support (RW)	\$0
Riccarton-Wigram	10380	Halswell WW Package 02	\$1,998,831
	10387	Townshend Crescent Wastewater	\$42,977
	10389	Sparks Rd Watermain	\$165,742
	10392	Halswell WW Package 1 (WW)	\$1,952,256
	10408	Glovers St water (WS)	\$31,013
Shirley-Papanui	10322	Ranfurly Street	\$118,881
	10323	Chrystal Street	\$84,057
	10329	Hope Street	\$143,266

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	10330	Orontes Street - WS	\$90,003
	10334	PM7 - Stapletons Rd	\$239,596
	10345	Nancy Ave / Weston Rd	\$16,297
	10348	Shirley Road - Wastewater (Emergency Repair)	\$696
	10369	Orion Street	\$41,861
	10437	PM 40_Marshlands	\$465,800
	10439	Heyders_29-65_WW	\$312,477
	10446	Brooklands Roding - Temporary Repairs	\$344,497
	10460	449 Durham Street North	\$293,099
	10555	Madras Street / Forfar Wastewater	\$577,098
	10748	Madras / Purchas Emergency Repair	\$7,594
Spreydon-Heathcote	10308	Riselaw Street	\$91,382
	10381	Rydal St (WW)	\$880,731
	10390	Centaurus Rd Watermain	\$143,455
	10393	Smartlea WW Emergency Repair	\$107,251
	10396	75 Wilsons Emergency Repair	\$825
	10597	Huntsbury Reservoir	\$4,032,071
	10745	CCC - Sydenham Stn Replace Wells (WS)	\$203,400
Grand Total	153		\$36,297,908

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 Construction Start	Estimated Construction 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
	WP0000783	B/P Retaining Walls	Retaining wall repairs in parks and cemeteries on Banks Peninsula	4	Investigation			\$241,000
Burwood Pegasus	WP0000251	PARKS CEAF 1.1 Sth New Brighton CAPEX	Hard surface and playground undersurfacing renewals	8	On Hold	01/10/2011	30/06/2012	\$227,000
	WP0000258	PARKS CEAF 1.2 B/P OPEX	Hard surface repairs	11	Construction	01/10/2011	29/02/2012	\$131,000
	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
	WP0000284	PARKS CEAF 2.6 TRAVIS CAPEX	Hard surface renewals	5	Construction	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
City wide	WP0000177	PARKS Playground Softfall - CAPEX	Replacement of contaminated softfall to playgrounds	24	Complete	01/08/2011	30/11/2011	\$358,460

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	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	Construction	01/03/2012	31/05/2012	\$54,500
	WP0000312	PARKS Hard Surface Nthn & Sthn - OPEX	Hard surface repairs	58	Investigation	01/03/2012	30/04/2012	\$127,950
	WP0000313	PARKS Hard Surfaces Nthn & Sthn CAPEX	Hard surface renewals	14	Investigation	01/03/2012	30/04/2012	\$204,600
	WP0000318	PARKS Hard Surfaces Eastern CAPEX	Hard surface renewals	24	Investigation	01/03/2012	31/05/2012	\$902,450
	WP0000321	PARKS Hard Surface Eastern - OPEX	Hard surface repairs	76	Investigation	01/03/2012	31/05/2012	\$227,900
	WP0000323	PARKS City Wide Turf Repairs - OPEX	Repairs to non sports turf surfaces	110	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	Construction	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

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	WP0000769	PARKS Port Hills Restoration	Port Hills rock fencing and planting	2	Investigation			\$200,000
	WP0000205	PARKS Sports Fields Repair - Moderate	Repairs to sports turf	19	Complete	01/05/2011	31/07/2011	\$254,000
	WP0000207	PARKS Sports Fields Repair - Minor	Repairs to sports turf	23	Complete	01/05/2011	31/07/2011	\$122,550
	WP0000779	Structural	Bridge repairs on Parks City wide	15	Investigation			\$816,200
	WP0000780	Regional Parks	Repairs to structures and hard surfaces	6	Investigation			\$465,000
	WP0000781	Trees	City wide tree renewals	1	Investigation			\$500,000
	WP0000782	Ponds	Repairs to small ponds and outflows in parks	2	Investigation			\$50,000
	WP0000784	Cemeteries - Operational	Repairs and make safe work to headstones in Operational cemeteries	18	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

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
Hagley Ferrymead	WP0000252	PARKS Victoria Lake CAPEX	Relining Victoria lake	1	Complete	01/07/2011	29/02/2012	\$500,000
	WP0000253	PARKS CEAF 1.3 Hagley Pk/Bot.Gdns CAPEX	Hard surface and playground undersurfacing renewals	5	Complete	01/09/2011	29/02/2012	\$295,000
	WP0000254	PARKS CEAF 1.4 Hagley Pk North CAPEX	Irrigation and Turf renewals	2	Complete	01/07/2011	31/07/2011	\$90,000
	WP0000263	PARKS CEAF 1.6 H/F CAPEX	Hard surface renewals	5	Construction	01/10/2011	29/02/2012	\$103,500
	WP0000264	PARKS CEAF 1.6 H/F OPEX	Hard surface, track and minor structure repairs	21	Construction	01/10/2011	29/02/2012	\$178,499
	WP0000265	PARKS CEAF 1.8 BOT. GARDENS CAPEX	Playground 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	On Hold	XXXXX	XXXXX	\$727,000
	WP0000288	PARKS CEAF 2.10 CENTRAL CITY PARKS CAPEX	Hard surface renewals	3	On Hold	XXXXX	XXXXX	\$15,000
	WP0000289	PARKS CEAF 2.10 CENTRAL CITY PARKS OPEX	Hard surface, track and minor structure repairs	10	On Hold	XXXXX	XXXXX	\$14,100
	WP0000767	PARKS Sumner/Scarborough Restoration	Hard surface renewals	9	Construction	01/12/2011	31/03/2012	\$187,000
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 Groyne CAPEX	Car Park, Driveway, Turf, Track and Jetty renewals	6	Complete	01/08/2011	30/09/2011	\$106,000
	WP0000256	PARKS CEAF 1.7 Temp Changing Rooms CAPEX	Portable changing facilities for sports parks	2	Construction	01/02/2012	31/05/2012	\$300,000

WARD	Work Package Number	Work Package Name	Description	Number of projects in package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	WP0000268	PARKS CEAF 2.1 English Park CAPEX	Car Park renewal	1	Complete	01/08/2011	30/10/2011	\$247,500
	WP0000277	PARKS CEAF 2.3 S/P OPEX	Hard surface and track repairs	5	Investigation	01/03/2012	31/05/2012	\$20,500
	WP0000278	PARKS CEAF 2.3 S/P CAPEX	Hard surface renewals	3	Investigation	01/03/2012	31/05/2012	\$90,000
	WP0000778	Roto Kohatu	Repairs to bankworks at Roto Kohatu Reserve	1	Complete	01/02/2011	30/04/2011	\$200,000
Spreydon Heathcote	WP0000279	PARKS CEAF 2.4 S/H OPEX	Hard surface and minor structural repairs	11	Construction	01/11/2011	31/03/2012	\$86,000
				250	Investigation		\$5,908,150	
				230	Construction		\$2,540,913	
				214	Complete		\$2,783,260	
				166	On Hold		\$7,116,200	
					Total		\$18,348,523	

*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	\$8,982,026
	C3 - New structural bottom - CIPP repair to influent pipe. - Modify Arms to suit new structure	Construction	24 Jan 12	30 May 12	
	C1 - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new Structure	Investigation	April 12	31 July 12	
	C2 - Verify that emergency repairs have returned asset to pre-EQ functionality and asset condition.	Investigation			
Civil & Structural	<ul style="list-style-type: none"> • Paving • C2 water • Crack repairs to structures. • Reclad Digester 2 	Construction	Oct 11	Sept 12	\$3,187,259
		Complete	Oct 11	Feb 12	
		Construction	April 11	Sept 12	
		Complete	Sept 11	Dec 11	
Oxidation Ponds	<ul style="list-style-type: none"> • Transfer structures 1-4 • Transfer Structure 4-5. • Pond banks strengthen and reinstate to design levels. • Estuary outfall structure • Cuthberts Road transfer structure 	Complete	Oct 11	Feb 12	\$18,122,788
		Complete	Dec 11	Mar 12	
		Construction	Jan 12	Sept 12	
		Design	July 12	Sept 12	
		Design	Aug 12	Nov 12	

Project	Description	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
Galleries	• South Gallery – drainage and structural	Construction	Feb 12	May 12	\$1,353,550
	• North Gallery – drainage & joints	Design	May 12	July 12	
	• Diagonal Gallery – drainage & joints	Design	April 12	July 12	
	• Pump Stn A – drainage & joints	Design	July 12	Aug 12	
	• Sludge Rm A – drainage & joints	Design	July 12	Aug 12	
Trickling Filters	• Trickling Filter 1	Investigation	Aug 12	Nov 12	\$700,000
	• Trickling Filter 2	Investigation	Nov 12	Mar 13	
Mechanical & General Repairs	• Digesters 2 – Structural Assessment found structure to be unsafe. Strengthening design underway, digester repairs on hold pending area being made safe for work.	Construction	Oct 11	April 12	\$4,088,195
	• Digesters 3	Design	May 12	July 12	
	• Digester 4	Investigation	July 12	Oct 12	
	• Digester 1	Investigation	Oct 12	Nov 12	
	• Digesters 5	Investigation	Dec 12	Jan 12	
	• Digester 6	Investigation	Mar 13	May 13	
	• Buffer Tank	Complete	Nov 11	Jan 12	
	• Primary Sedimentation Tanks	Construction	June 11	July 12	
• Bio- Solids Holding Tank	Design	July 12	Dec 12		
Organics Processing Plant	• Demolish & Reconstruct Tunnels	Construction	Mar 12	July 13	\$9,518,133
	• Repair & Strengthen Process Hall				
	• Repair Hard Standing				
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	<ul style="list-style-type: none"> Prepare areas for disposal Operate and maintain disposal site Restoration and landscaping Resource consent application 	319,000	319,000	Completed Operation	Feb 11 Feb 11	Jan 12 Dec 13	Self Funded
				Investigation	Jan 12	Dec 13	
				Investigation	Jan 12	Jun 12	
Burwood Landfill Residual Demolition Waste Disposal	<ul style="list-style-type: none"> Design of new cell for residual waste Cell construction Operate and maintain disposal site Restoration and landscaping Resource consent application 	0	0	Design	Oct 11	Mar 12	To be funded by Transwaste Canterbury
				Design	Mar 12	Aug 12	
				Design	Sep 12	Dec 17	
				Design	Jul 17	Dec 17	
Burwood Resource Recovery Park Demolition Sorting and Processing Facility	<ul style="list-style-type: none"> Construct areas for storage of material and associated roading Design of sorting plant Construction of sorting plant Sorting operation Rehabilitation and landscaping Resource consent application 	300,000	0	Complete	Feb 11	Jun 11	To be funded by Transwaste Canterbury
				Design	Mar 11	Feb 12	
				Construction	Mar 12	Dec 12	
				Operation	Dec 12	Dec 17	
				Design	Jul 17	Dec 17	
Investigation	Oct 11	Jun 12					
	TOTAL	619,000	319,000				

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.

	March At Ground Level	April At Ground Level	March Below Ground Level	April Below Ground Level	March Totals	April Totals
Total number of active wells					154	154
Wells yet to be repaired ⁺ *	42	37	64	56	106	93
Cost Estimate all repairs ⁺	\$4,692,000	\$4,692,000	\$16,591,000	\$17,368,000	\$21,283,000	\$22,060,000
Wells repaired to date ⁺ *	61	66	62	70	123	136
Cost to date⁺	\$2,296,801	\$2,331,707	\$2,976,386	\$3,576,353	\$5,273,187	\$5,908,060

+ includes replacement wells

* some wells are damaged both at and below ground level

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