

**COUNCIL 15. 3. 2012**

**7. INFRASTRUCTURE REBUILD MONTHLY REPORT**

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

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

**EXECUTIVE SUMMARY**

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

**STAFF RECOMMENDATION**

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

# Stronger Christchurch

Infrastructure Rebuild

## INFRASTRUCTURE REBUILD

### PROGRESS REPORT

March 2012

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*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 month of February has been a busy month in terms of ramping up with a focus on the forward workloads. The SCIRT focus has been on increasing the number of projects in design to ensure there is sufficient Work In Progress for the delivery teams.

Establishing a prioritised 18 month delivery programme and associated cash flow forecast has also been a focus for the SCIRT. This programme and cash flow forecast is being used to inform the Annual Plan and also appropriations from Treasury. It is anticipated that this programme will be comprehensively communicated externally in two months.

Meetings with Community Boards across the city to identify local priorities, opportunities and ensure alignment with other work planned in the area are almost complete. These have been well received and good feedback obtained. The feedback obtained will be made available to both the SCIRT for consideration in their prioritisation and will also be made available to Council and CERA for consideration of any betterment opportunities associated with the infrastructure rebuild or where projects will need to be considered for the Long Term Plan (LTP).

SCIRT staff are planning another round of meetings in around two months' time to discuss with the boards the forward work schedule that is being finalised now.

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

The SCIRT communications team issued 52 work notices to residents in February, either signalling the start of a piece of work or updating on progress. The team also continue to produce information for media, advertising and public information as well as responding directly to the public and elected members' queries.

The 'slow down around roadworks' campaign was launched at the beginning of February with a media release, video footage on the SCIRT website, advertisements and stickers for construction related vehicles. A mobile billboard is being hired for a period of around three weeks to promote SCIRT's safety around roadworks campaign. This campaign will continue throughout the rebuild to heighten awareness of safety issues around construction sites. This will be especially important with the increase in work sites around the city over the coming months.

Independent market research is continuing, with the first survey for 2012 undertaken in areas where work has finished. The aim is to gauge resident and stakeholder satisfaction with the rebuild and how they are being informed about it. Results will become available soon.

A newsletter outlining the who, what, when, where and why of SCIRT is being planned to aid visibility of the organisation's work.

Two meetings are being planned for Lyttelton in March with a focus on the retaining wall rebuild.

SCIRT's schedule of works for the next 18 months will be released publicly in the near future. Advertisements, an e-newsletter article, a fact sheet and community newsletter content has been prepared highlighting SCIRT's approach to prioritisation.

#### **Media and advertising coverage over the past month included:**

- The Star, 06/02 Project in pipeline to give trees the chop, about Downer project Linwood to Bromley Wastewater Treatment Plant.
- Bay Harbour News, 01/02 Repair starts on retaining walls, about Fulton Hogan and the project on the Sumner Road retaining walls.
- Monthly advertisement in The Press, (11/2) The Christchurch Star (15/2) and The Mainland Press (22/2) Asian Media (February issue).
- Our Christchurch February Press advertising featured the SCIRT safety campaign.

- Safety campaign – slow down around roadworks: appearances in The Press (4/2) The Christchurch Star (8/2) and The Mainland Press (10/2)

## **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 February 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 100 projects that are in the process of being completed and handed over, at which point they will move into the relevant activity.

**Table 1.0 Actual Year to Date Cost Against Budget**

FINANCE AS AT 29 FEBRUARY 2012					
Activity	Description	2011/12 Approved Budget	Actual Cost YTD	Forecast Total Spend This Year	Year End Variance
Parks & Open Spaces	Greenspace	\$ 6,500,000	\$ 16,959	\$ 6,500,000	-
Refuse Minimisation & Disposal	Solid Waste	\$ 6,900,000	\$ 210,560	\$ 6,900,000	-
Road Network	Roading	\$ 102,700,000	\$ 436,773	\$ 102,700,000	-
Wastewater Collection		\$ 67,100,000	\$ 20,664,085	\$ 67,100,000	-
Wastewater Treatment & Disposal	WW Treatment Plant	\$ 69,300,000	\$ 4,313,789	\$ 69,300,000	-
Water Supply	Water Supply	\$ 14,200,000	\$ 917,363	\$ 14,200,000	-
Waterways & Land Drainage	Stormwater	\$ 16,800,000	\$ 12,000,000	\$ 16,800,000	-
<b>TOTAL INFRASTRUCTURE REBUILD PROGRAMME</b>		<b>\$ 283,500,000</b>	<b>\$ 38,559,528</b>	<b>\$ 283,500,000</b>	<b>\$ -</b>
<b>Works in Progress and set up costs</b>					
Non Physical works		\$ -	\$ 50,531,566	\$ -	-
Physical works		\$ -	\$ 101,057,247	\$ -	-
<b>Total Work in Progress and set up costs</b>		<b>\$ -</b>	<b>\$ 151,588,813</b>	<b>\$ -</b>	<b>-</b>
<b>Other</b>					
Auckland CC Parks Donation	Greenspace	\$ 931,800	\$ 719,442	\$ 931,800	-
Road Network	EQ Public Transport	\$ 827,400	\$ 804,679	\$ 827,400	-
	EQ Parking	\$ -	\$ 972,335	\$ -	-
<b>Total Other</b>		<b>\$ 1,759,200</b>	<b>\$ 2,496,456</b>	<b>\$ 1,759,200</b>	<b>-</b>
<b>GRAND TOTAL</b>		<b>\$ 285,259,200</b>	<b>\$ 192,644,797</b>	<b>\$ 285,259,200</b>	<b>\$ -</b>



#### **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 100 projects that are in the process of being completed and handed over, at which point they will move into the relevant activity.

**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	\$ -	\$ -
<b>TOTAL</b>		<b>\$ 2,015,238,095</b>	<b>\$ 38,458,955</b>	<b>\$ 190,148,341</b>	<b>\$ 228,607,296</b>	<b>\$ 2,015,238,095</b>	<b>\$ -</b>
<b>Other</b>							
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	\$ -	\$ -
		<b>\$ 1,759,200</b>	<b>\$ -</b>	<b>\$ 2,496,456</b>	<b>\$ 2,496,456</b>	<b>\$ 1,759,200</b>	<b>\$ -</b>
<b>TOTAL</b>		<b>\$ 2,016,997,295</b>	<b>\$ 38,458,955</b>	<b>\$ 192,644,797</b>	<b>\$ 231,103,752</b>	<b>\$ 2,016,997,295</b>	<b>\$ -</b>

## **5. SCIRT WORK ACTIVITY**

### **5.1 Achievement Report**

The progress report for this month includes an achievement report which outlines progress made by the construction projects against key metrics for each asset type. It is anticipated that this achievement report will be included in each monthly report.

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

Asset Type	Asset Sub-Type	Unit	Reference	Project	Up to Nov	Dec	Jan	Feb	Mar	Total
Transport - Roading	Pavement	m2			240	9,855	918	4,396	170	15,579
	Retaining Walls	%	10424	Sumner Rd Retaining Wall L			3%	30%		33%
			10445	Fitzgerald Ave Wall and Roading	33%	17%	20%	11%	19%	100%
			10763	Monks Bay Walkway - Temp Repairs		95%				95%
			10822	McCormacks Bay Reservoir Stage 2 Walls			5%	1%		6%
			10821	Huntsbury Reservoir Tank No 2 & demolition				1%		1%
Waste Water Pump Stations	Pump Station	%	10361	PS54 Catchment Temp. Solutions		23%	8%	20%	2%	53%
			10728	Rowan Ave Emergency Work WW	0					0
Waste Water Reticulation	Gravity	m			443	2,240	1,753	2,980	327	7,743
	Pressure System	m			456	610	535	598		2,199
	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%	72%				100%
			10821	Huntsbury Reservoir Tank No 2 & demolition				10%		10%
Water Supply Reticulation	Mains	m			3,284	1,334	563	266	100	5,547
	Pipes	m			2,063	675	64	102	200	3,104

## 5.2 Number of Ongoing SCIRT Projects

The following table is a summary of the programme pipeline as at 29<sup>th</sup> February 2012. It shows how many projects and the total value at each stage of the project lifecycle.

<b>Project Lifecycle Stage</b>	<b>Estimate</b>	<b>Estimated Construction Cost</b>
Investigation (Asset Assessment)	1	\$2,500,000
Concept Design	79	\$384,073,324
Detailed Design	56	\$148,188,227
Construction	60	\$63,158,038
Handover	150	\$54,154,865
<b>Grand Total</b>	<b>346</b>	<b>\$652,074,454</b>

## **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 January 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.
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 Roding (RD)	Design for road reconstruction to repair moderate to severe earthquake damage to carriageway, kerb and channel, and footpaths from Dallington Bridge northwards to Mundys Road. This project will become part of PS108 Catchment Phase 1 Roding, Storm Water and Water Supply. This work follows wastewater repairs/replacement.
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.

Burwood / Pegasus in Detailed Design		
Reference	Project	Project Description
10694	PS36 Renewal (WW)	New PS36 to replace existing PS36. New station capacity approximately 900 L/S.
10724	Bridge St bridge and approaches	Replace damaged bridge abutments and approaches with new structure including road works and services reinstatement.
10765	PS 108 New Pump Station	Minor new pump station.
10769	CCC - Keyes Pumping Station (WS)	CCC capital works programme rebuilding project for the Keyes Water Pumping Station.
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 Roding Renewals (South of Breezes Road)	Road design for Pembroke St and Horton Place in Avondale. A new pipe system is needed on Horton St requiring asset managers understanding and buy-in.
10806	Pages & Cuffs Emergency Repair Roding	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.

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.	30/01/12	29/03/2012	\$263,863	\$-
10335	PS54 - Catchment	A large waste water catchment of approx 12 streets which all drain to Pump Station 54 in Avondale.	1/06/11	13/06/2012	\$10,893,000	\$3,669,245
10349	PS39 - Birchfield Avenue WW EW	Emergency Works at the waste water pumping station in Dallington.	13/10/11	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.	14/11/11	28/09/2012	\$5,187,910	\$769,849
10421	Estuary Rd Carriageway, PS37 to Bridge Street Catchment (WW)	Estuary Road from Beatty Street to Bridge Street is undergoing the installation of a new deep gravity sewer main. Installation is required as a result of extensive earthquake damage on the existing main, allowing infiltration.	26/09/11	19/03/2012	\$2,110,000	\$408,427
10532	Cnr Pages & Cuff - Emergency Repair	A large waste water renewal to a section of gravity pipe in Pages Rd.	30/01/12	26/04/2012	\$945,238	\$3,298
10576	PM106 - Woolley	A small simple sewer pressure main being constructed in Woolley St to service a modified sewer catchment in Avondale.	30/01/12	29/02/2012	\$124,770	\$-
10607	PM 37	Installing a new PE pressure main from PS37 to Mountbatten Street due to concrete pressure main being damaged beyond repair.	3/08/11	02/03/2012	\$1,372,710	\$1,910,816
10651	Keyes Rd Watermain (WS)	Watermain renewal in Keyes Road between Pratt Street and Hawke Street.	21/06/12	25/07/2012	\$168,994	\$20,623
10681	Bower Avenue Watermain and Submains (WS)		27/02/12	24/04/2012	\$322,458	\$-
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.	16/01/12	09/02/2012	\$105,306	\$64,851

<b>Burwood / Pegasus in Construction</b>						
<b>Reference</b>	<b>Project</b>	<b>Project Description</b>	<b>Estimated Construction Start</b>	<b>Estimated Construction Finish</b>	<b>Estimated Construction Cost</b>	<b>Life To Date</b>
<b>10708</b>	Rookwood Ave Watermain	Repair or replacement of water supply assets along a main road in North New Brighton.	7/11/11	06/03/2012	\$322,545	\$57,891
<b>10789</b>	Woodham Road Water Supply Pumping Line Renewal	A small watermain replacement in Wainoni.	5/12/11	20/02/2012	\$106,585	\$34,930

### 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.	6/03/12	26/03/2012	\$27,385	\$-

### 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	Temporary bracing to arch to support the structure and to allow safe access for permanent repair works. In CBD, Heritage structure.
10830	Minor Works - Bridge Minor Works Project Package 01	Minor repair to bridges requiring little design input. Project to be led by SCIRT Project Manager and Delivery teams.
10867	Fitzgerald Ave Retaining Wall Footpath	Footpath element of the Retaining Wall project. Linked to Project #10445

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 Rooding	The works include the replacement of a failed retaining wall and carriageway. Ground stabilization is also being installed with stone columns 12 meters deep.	9/09/11	18/06/2012	\$3,130,000	\$2,300,095

### 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	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 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, 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
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
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.
10679	Moncks Spur No. 3	Repair and retrofit of reservoir.
10770	10770 Linwood Ave / Humphrys DR Retaining Wall Emergency (Permanent) Repairs	8m replacement and 8m extension of retaining wall at the City outfall drain to the estuary
10797	NZTA Heathcote/Opawa Bridge Repairs	Ground improvements, and underpinning and lifting (jacking) of the abutments
10798	NZTA Port Hills Overpass Bridges	Pier column refinement, subject to ground investigation results
10799	NZTA Horotane Overpass Bridges	Propping system between piers, subject to ground investigation results
10841	Charleston Catchment RD SW WS	Linked to Project 10472 WW for the RD SW and WS elements
10863	Charleston Waste Water Pump Station	Pumps Station Construction
10864	Woodham Road (SW,RD,WS)	Storm water and water supply elements linked to project 10356

Hagley / Ferrymead in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10339	Woodham Road (Temp Repairs)	A large complex repair to a sewer trunk main in Woodham Rd.	15/09/11	02/04/2012	\$3,500,000	\$2,996,994
10356	Woodham Rd (PS5 east of river)	The project scope requires replacement of 960m of damaged waste water from Linwood Ave to Ngarimu St. Road refurbishment will follow sewer works. Traffic diversion are required for this work to be completed safely.	14/11/11	24/05/2012	\$3,049,444	\$737,737
10358	PS57 - McCormacks Bay Rd Sewer Overflow Renewal	A small repair to an important gravity waste water overflow from a pump station in McCormacks Bay.	23/11/11	17/01/2012	\$124,548	\$115,746
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	05/03/2012	\$-	\$307,394
10386	St Andrews Hill Rd Sewer (Major Hornbrook)	Emergency repair of stormwater and ww sewer lines between manhole and 22394 and 22393	14/02/12	28/02/2012	\$65,380	\$-
10388	Richardson Clarendon Syphon	The extent of this work for this work package is the replacement of the 144 Richardson Terrace / 121	16/11/11	24/01/2012	\$473,489	\$-
10403	Barbour St Water (WS)	Replacement of water mains in two streets to the south and east of AMI Stadium, Waltham.	7/12/11	17/01/2012	\$174,742	\$-

<b>Hagley / Ferrymead in Construction</b>						
<b>Reference</b>	<b>Project</b>	<b>Project Description</b>	<b>Estimated Construction Start</b>	<b>Estimated Construction Finish</b>	<b>Estimated Construction Cost</b>	<b>Life To Date</b>
<b>10411</b>	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.	28/09/11	22/12/2011	\$227,000	\$302,981
<b>10417</b>	Upper Balmoral Reservoir	Upgrading reservoir to 100% of code; fibre wrap column, new internal concrete beam to the wall and external beam at wall roof junction, fabric roof.	5/09/11	05/12/2011	\$309,000	\$336,425
<b>10422</b>	PM 31 Renewal Works	Between 8 and 202 Main Road, Redcliffs a Sewer Gravity Main renewal is required due to the existing main suffering extensive damage.	13/10/11	27/02/2012	\$939,748	\$785,019
<b>10434</b>	PS12 Smith	Minor pump station repairs.	23/12/11	17/02/2012	\$15,000	\$3,223
<b>10442</b>	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.	1/11/11	07/03/2012	\$203,962	\$204,863
<b>10459</b>	Lower Richmond-Stanmore to Fitzgerald (WW)	Approximately 5km of WW, gravity system; requiring 2 new pump stations	3/04/12	13/02/2013	\$10,045,364	\$1,723,794
<b>10478</b>	F805 McCormacks Bay 1 Footbridge	Minor repairs to a footbridge in McCormacks Bay below Mt Pleasant.	8/12/11	01/03/2012	\$30,000	\$-
<b>10479</b>	F806 McCormacks Bay 2 Footbridge	Minor repairs to a footbridge in McCormacks Bay below Mt Pleasant.	29/11/11	07/02/2012	\$10,000	\$-
<b>10481</b>	R223 Heathcote Barrage	Minor make safe works at flood gates on Heathcote River.	30/01/12	20/02/2012	\$10,000	\$-

Hagley / Ferrymead in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
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	21/01/2013	\$316,261	\$32,123
10496	PS13 Tilford	Minor pump station repairs.	15/12/11	01/03/2012	\$5,000	\$-
10497	PS10 Linwood WW	Minor pump station repairs.	8/12/11	01/03/2012	\$20,000	\$-
10537	Patten Street	A small diameter waste water renewal project along Patten St in Linwood.	20/01/12	23/05/2012	\$707,722	\$40
10539	Brittan Street	Renewal of Wastewater services for the full length of Brittan Street from Armagh Street to Woodham Road	24/02/12	10/05/2012	\$538,718	\$-
10541	PS11 - Randolf		22/05/12	28/05/2012	\$4,000	\$-
10586	PM107		1/02/12	28/03/2012	\$325,825	\$-
10612	McCormacks Bay Reservoir No 2-2	54 Glenstrae Road, earthquake in February damaged 5000m3 reservoir, existing floor cracked and tank leaked. Upgrading reservoir to 67% of code by installing new floor and ring beam.	20/12/11	06/08/2012	\$6,600,000	\$538,134
10687	Wakefield Ave Watermain (WS)	Watermain renewal along Wakefield Avenue, Sumner, between Colenso Street and Arnold Street.	12/12/11	27/02/2012	\$76,824	\$10,833
10716	PM 34 Sumner - Replacement		14/02/12	31/05/2012	\$1,300,000	\$931
10779	Linwood Avenue Water Main	These works include the replacement of a 300mm water main from the pump station at St Johns and Linwood Ave to the intersection of Keighleys and Linwood Ave.	30/01/12	12/03/2012	\$445,336	\$307,804



<b>Hagley / Ferrymead in Construction</b>						
<b>Reference</b>	<b>Project</b>	<b>Project Description</b>	<b>Estimated Construction Start</b>	<b>Estimated Construction Finish</b>	<b>Estimated Construction Cost</b>	<b>Life To Date</b>
<b>10782</b>	15 Dunoon Place Emergency Stabilisation / Sewer Repair	Collapsed sewer main on private lateral	12/12/11	20/02/2012	\$100,000	\$128,776
<b>10792</b>	Truro Street Emergency Waste Water Sewer Renewal (Van Asch School)	Repair of wastewater pipeline through Van Ash School Sumner	16/01/12	11/04/2012	\$264,929	\$6,177

### 5.3.6 Lyttelton / My Herbert

Lyttelton / Mt Herbert in Detailed Design		
Reference	Project	Project Description
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.
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
10636	Priority Roads - Governors Bay Road Rebuild	Make safe, Road patching job along Governors Bay Road.	27/02/12	23/03/2012	\$182,633	\$ -

### 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.	16/01/12	23/03/2012	\$547,000	\$160,189
10408	Glovers St water (WS)	The works consist of the replacement of approximately 665 m of existing 100 mm AC water main in Glovers Road and Halswell Road with 125 mm PE100 PN12.5 pipe.	15/02/12	27/03/2012	\$329,331	\$-

### 5.3.8 Shirley / Papanui

Shirley / Papanui in Detailed Design		
Reference	Project	Project Description
10313	PM6 - Harrison St	Renewal of 6 inch AC pressure main with new PE pressure main.
10457	Purchas & Madras (Bealey - Edgeware)	WW, SW and roading repairs. Includes traffic calming on Purchas St to conform with IDS and City Plan requirements for Local Road widths.
10810	PS7 Catchment Phase 1 Waste Water Renewal	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 Stapletons Road and Shirley Road which bisect the catchment. (Area 2 of 4, eastern quarter of catchment)
10814	PS7 Catchment Phase 3 Waste Water Renewal	Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley, centred upon Stapletons Road and Shirley Road which bisect the catchment. (Area 3 of 4, north western quarter of catchment)
10816	PS7 Catchment Phase 4 Waste Water Renewal	Wastewater network remediation in the Pump Station 7 catchment which is situated in Shirley, centred upon Stapletons Road and Shirley Road which bisect the catchment. (Area 4 of 4, central/western quarter of catchment)

Shirley / Papanui in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10344	Edgeware Road - Emergency Works	A large complex repair to a sewer trunk main in Edgeware Rd.	22/09/11	11/07/2012	\$1,734,794	\$889,528
10535	Rutland Rd - subcatchment	Wastewater repair along a single street east of Papanui. This project area is lightly to be revised.	20/03/12	06/07/2012	\$1,556,699	\$-

**Shirley / Papanui in Construction**

Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction 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	20/07/2012	\$1,748,495	\$-
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 Edgeware 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.	29/02/12	04/05/2012	\$197,367	\$-

### 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 Road Repairs	Repair of road and all buried services along Antigua St (between Moorehouse & Brougham) and Burke St (between Selwyn & Montreal)
10379	Fisher Ave & Eastern Tce Syphon	Repair of Syphon near Fisher Ave
10385	Bewdley Evesham and Dellow	Repair of road and all buried services along Bewdley St, Eversham Cres & Dellow Pl.
10407	St Martins Package 02	Repair of road and all buried services within the St Martins loop, north of Centaurus Rd.

Spreydon / Heathcote in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10319	10319 St Martins Package 01 - Project Allocation Construction	Replacement renewal and repair of selected wastewater mains and laterals along partial extents of Wilsons Road South, St Martins Road and Gamblins Road in the St Martins suburb.	5/12/11	30/03/2012	\$957,480	\$469,118
10320	Murray Aynsley Reservoir 2	Repairs to the roof and repair of spalled concrete at the reservoir, and associated repairs to the watermain at the site.	8/08/11	07/11/2011	\$150,000	\$147,994
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.	27/02/12	16/03/2012	\$103,236	\$-

Spreydon / Heathcote in Construction						
Reference	Project	Project Description	Estimated Construction Start	Estimated Construction Finish	Estimated Construction Cost	Life To Date
10404	Hollis Ave Water (WS)	The works consist of the replacement of approximately 330 m of existing 100 mm AC water main in Holliss Avenue with 125 mm PE100 PN16 pipe.	2/07/12	27/07/2012	\$135,869	\$-
10432	PS19 Beckford	Minor pump station repairs.	13/12/11	06/03/2012	\$3,000	\$-
10433	PS20 Locarno	Minor pump station repairs.	9/12/11	10/02/2012	\$20,000	\$30,111
10477	F212 Sloan Tce Footbridge	Corbel addition to pre cast concrete span bridge	27/01/12	17/02/2012	\$24,229	\$-
10787	Rydal Street Water Supply, Storm Water and Roding Renewals (SW,WS, RD)	Replacement of water and storm water supply along Rydal St and respective roading renewals	16/01/12	03/05/2012	\$375,349	\$27,693

## 5.4 Projects Complete By Ward

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

Ward	Number of Projects	Project Life to Date Cost
Burwood-Pegasus	72	\$14,231,607
Fendalton-Waimairi	2	\$60,309
Central City	5	\$177,543
Hagley-Ferrymead	41	\$7,840,139
Lyttelton-Mt Herbert	4	\$38,936
Riccarton-Wigram	4	\$4,065,545
Shirley-Papanui	15	\$3,110,820
Spreydon-Heathcote	7	\$5,203,951
<b>Total</b>	<b>150</b>	<b>\$34,728,850</b>

### 5.4.1 List of Projects Complete By Ward

Ward	Reference	Project	Project Life to Date Cost
<b>Burwood-Pegasus</b>	10321	PM51 Emergency Repair	\$-
	10325	Cresswell Avenue - Watermains	\$148,362
	10327	Pembroke Street	\$146,277
	10328	De Ville Place	\$102,790
	10331	PM39 - Gayhurst Rd	\$1,512,493
	10332	PM54 - Niven-Avonside	\$372,066
	10338	Wainoni Road (WW 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
	10364	Shortland Street	\$342,893
	10366	McBratneys Road - WM	\$-
	10376	PM28	\$1,496,219



Ward	Reference	Project	Project Life to Date Cost
	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	Palmers 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
	10695	Allstone Watermain	\$95,911

Ward	Reference	Project	Project Life to Date Cost
	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	\$-
<b>Fendalton-Waimairi</b>	10354	Papanui Road - Emergency Work	\$53,551
	10590	Thornycroft Street - Pri4 WM	\$6,758
<b>Central City</b>	10447	Fitzgerald Ave Temp Sewer replacement	\$23,775
	10455	Fitzgerald Ave Twin Bridges Temp Repairs	\$-
	10726	Stormwater Pump Station 203	\$45,076
	10764	PM3 Temporary Repair (Complex Emergency)	\$512
	10790	Liverpool Street Water Main (CBD)	\$108,180
<b>Hagley-Ferrymead</b>	10301	CCC - Tanner Street Replacement Well (WS)	\$13,299
	10326	Retreat Road	\$600,001
	10333	PM57 - Replacement (Stage 2 March)	\$2,056,970
	10337	Avonside - WW Trunk Sewer	\$205,286
	10341	River Road - Siphon (WW)	\$477,832
	10350	Avonside Drive/Retreat - Gravity Sewer Repair	\$93,588
	10352	Avonside Drive/Morris Bowie - Gravity Sewer Temp. Solution	\$86,006
	10353	294 Avonside Drive - Temp. Solution	\$241,657
	10360	Eveleyn Couzins Ave - Temp. Solutions	\$-
	10362	PS5 - Glade	\$-
	10372	Dacre Street	\$125,471
	10391	Stevens St Watermain	\$156,789
	10402	Moorhouse SW BB 02	\$72,121
	10406	226 Main Road SW	\$-
	10431	PS15 Alport	\$254,712
	10441	Ferry Road_873	\$175,034
	10448	PM 12	\$-

Ward	Reference	Project	Project Life to Date Cost
	10451	Manning-Ferry	\$13,751
	10452	WW No Service Grafton	\$132,447
	10454	225 Linwood Ave	\$63,990
	10458	31 Stanmore Road	\$44,619
	10463	Hamner Street - waste water relay	\$72,889
	10471	33 River Terrace	\$38,939
	10473	Wickham St Watermain replacement	\$291,663
	10499	Saxon Street Waste Water	\$29,777
	10505	Stanmore Road Lateral	\$-
	10545	PS19 - Syphon	\$-
	10609	PM 47	-\$41,140
	10613	Mt Pleasant Reservoir 2/2	\$95,484
	10618	Beachville Road Pressure + Gravity Main	\$465,410
	10629	McCormacks Bay Rd WR mains and submains	\$1,428,951
	10644	55 Clark St WW	\$908
	10677	Beachville Watermain (WS)	\$223,756
	10729	WW, Gravity Bridal Path and Cannon	\$191,527
	10734	WW, 262 Main Road	\$-
	10739	Heberden Ave Temporary Solution (WW)	\$97,178
	10743	281 River Rd Siphon (WW)	\$-
	10746	Ruru Ave Repair PM 11	\$13,904
	10747	Bromley Waste Water Treatment	\$83,925
	10753	WW No Service Glendever (WW)	\$3,411
	10763	Monks Bay Walkway - Temp Repairs	\$29,983
<b>Lyttelton-Mt Herbert</b>	10382	Lyttelton Treatment Plant Access	\$-
	10672	Sutton Quay Retaining wall 441	\$38,936
	10732	Flat land at base on hill along Main Road - WW	\$-
	10784	Canterbury Street Retaining Wall - Emergency Temporary Support (RW)	\$-
<b>Riccarton-Wigram</b>	10380	Halswell WW Package 02	\$1,992,799
	10387	Townshend Crescent Wastewater	\$42,977
	10389	Sparks Rd Watermain	\$162,069
	10392	Halswell WW Package 1 (WW)	\$1,867,699
<b>Shirley-Papanui</b>	10322	Ranfurly Street	\$117,417
	10323	Chrystal Street	\$83,645
	10329	Hope street	\$139,221
	10330	Orontes Street - WS	\$84,898
	10334	PM7 - Stapletons Rd	\$231,474
	10345	Nancy Ave / Weston Rd	\$16,297
	10348	Shirley Road - Wastewater (Emergency Repair)	\$-

Ward	Reference	Project	Project Life to Date Cost
	10369	Orion Street	\$38,764
	10437	PM 40_Marshlands	\$465,800
	10439	Heyders_29-65_WW	\$312,477
	10444	PM25_Golf Links-North Pde	\$590,509
	10446	Brooklands Roding - Temporary Repairs	\$339,678
	10460	449 Durham Street North	\$295,030
	10555	Madras Street / Forfar Wastewater	\$388,417
	10748	Madras / Purchas Emergency Repair	\$7,194
<b>Spreydon-Heathcote</b>	10308	Riselaw Street	\$86,327
	10381	Rydal St (WW)	\$875,956
	10390	Centaurus Rd Watermain	\$142,593
	10393	Smartlea WW Emergency Repair	\$107,251
	10396	75 Wilsons Emergency Repair	\$-
	10597	Huntsbury Reservoir	\$3,790,918
	10745	CCC - Sydenham Stn Replace Wells (WS)	\$200,907
<b>Grand Total</b>			<b>\$34,728,850</b>

## 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
<b>Lyttelton Mt Herbert</b>	WP0000537	PARKS Marine Structures Repairs	Marine Structures Repairs	13	Investigation	01/08/2011	30/06/2012	\$462,000
	WP0000551	PARKS Marine Structures Assessments	Marine Structures Assessments	10	Complete	01/08/2011	30/11/2011	\$60,000
	WP0000783	B/P Retaining Walls	Retaining wall repairs in parks and cemeteries on Banks Peninsula	4	Investigation			\$241,000
<b>Burwood Pegasus</b>	WP0000251	PARKS CEAF 1.1 Sth New Brighton CAPEX	Hard surface and playground under surfacing renewals	8	On Hold	01/10/2011	30/06/2012	\$227,000

Ward	Work Package Number	Work Package Name	Description	Number of Projects in Package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	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
	WP0000257	PARKS CEAF 1.2 B/P CAPEX	Bexley, Avondale and Burwood Parks hard surfacing renewals	3	Complete	01/09/2011	31/10/2011	\$60,200
	WP0000258	PARKS CEAF 1.2 B/P OPEX	Hard surface repairs	11	Construction	01/10/2011	29/02/2012	\$131,000
<b>ChCh City wide</b>	WP0000177	PARKS Playground Softfall - CAPEX	Replacement of contaminated softfall to playgrounds	24	Complete	01/08/2011	30/11/2011	\$358,460
	WP0000206	PARKS Playground Softfall - OPEX	Repairs to playground under surfacing	8	Complete	01/08/2011	20/12/2011	\$46,500
	WP0000269	PARKS CEAF 2.2 S/P,F/W,R/W,L/M OPEX	Hard surface and minor structural repairs	11	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

Ward	Work Package Number	Work Package Name	Description	Number of Projects in Package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	WP0000323	PARKS City Wide Turf Repairs - OPEX	Repairs to non sports turf surfaces	110	Construction	01/11/2011	31/05/2012	\$393,050
	WP0000357	PARKS Retaining Walls CAPEX	Minor retaining wall renewals	6	Investigation	01/08/2011	30/06/2012	\$262,000
	WP0000358	PARKS Retaining Wall Repairs	Minor retaining wall repairs	26	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
	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

Ward	Work Package Number	Work Package Name	Description	Number of Projects in Package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	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
<b>Hagley Ferrymead</b>	WP0000252	PARKS Victoria Lake CAPEX	Relining Victoria lake	1	Construction	01/07/2011	29/02/2012	\$500,000
	WP0000253	PARKS CEAF 1.3 Hagley Pk/Bot.Gdns CAPEX	Hard surface and playground under surfacing renewals	5	Complete	01/09/2011	29/02/2012	\$295,000
	WP0000254	PARKS CEAF 1.4 Hagley Pk North CAPEX	Irrigation and Turf renewals	2	Complete	01/07/2011	31/07/2011	\$90,000
	WP0000263	PARKS CEAF 1.6 H/F CAPEX	Hard surface renewals	5	Construction	01/10/2011	29/02/2012	\$103,500



Ward	Work Package Number	Work Package Name	Description	Number of Projects in Package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	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	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
<b>Riccarton Wigram</b>	WP0000280	PARKS CEAF 2.5 MONA VALE CAPEX	Hard surface, bridge and wall renewals	5	Investigation	XXXXX	XXXXX	\$292,000
<b>Shirley Papanui</b>	WP0000255	PARKS CEAF 1.5 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	Investigation	01/03/2012	31/05/2012	\$20,500

Ward	Work Package Number	Work Package Name	Description	Number of Projects in Package	Phase	Estimated Construction Start	Estimated Construction Finish	Estimated Cost
	WP0000278	PARKS CEAF 2.3 S/P CAPEX	Hard surface renewals	3	Investigation	01/03/2012	31/05/2012	\$90,000
	WP0000778	Roto Kohatu	Repairs to bank works at Roto Kohatu Reserve	1	Complete	01/02/2011	30/04/2011	\$200,000
<b>Spreydon Heathcote</b>	WP0000279	PARKS CEAF 2.4 S/H OPEX	Hard surface and minor structural repairs	11	Construction	01/11/2011	31/03/2012	\$86,000
				250	Investigation		\$5,908,150	
				341	Build		\$3,433,963	
				103	Complete		\$1,890,210	
				166	On Hold		\$7,116,200	
					<b>TOTAL</b>		<b>\$18,348,523</b>	

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

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

Project	Description	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
Clarifiers	<b>C4</b> - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new structure.	Complete	Nov 11	3 Feb 12	\$8,982,026
	<b>C3</b> - New structural bottom - CIPP repair to influent pipe. - Modify Arms to suit new structure	Construction	24 Jan 12	30 May 12	
	<b>C1</b> - New structural bottom - CIPP repair to influent pipe - Modify Arms to suit new Structure	Investigation	April 12	31 July 12	
	<b>C2</b> - Verify that emergency repairs have returned asset to pre-EQ functionality and asset condition.	Investigation			
Civil & Structural	<ul style="list-style-type: none"> <li>• Paving</li> <li>• C2 water</li> <li>• Crack repairs to structures.</li> <li>• Reclad Digester 2</li> </ul>	Construction Complete Construction Complete	Oct 11 Oct 11 April 11 Sept 11	Sept 12 Feb 12 Sept 12 Dec 11	\$3,187,259
Oxidation Ponds	<ul style="list-style-type: none"> <li>• Transfer structures 1-4</li> <li>• Transfer Structure 4-5.</li> <li>• Pond banks strengthen and reinstate to design levels.</li> <li>• Estuary outfall structure</li> <li>• Cuthberts Road transfer structure</li> </ul>	Complete Construction Construction Design Design	Oct 11 Dec 11 Jan 12 May 12 April 12	Feb 12 Mar 12 Sept 12 Aug 12 July 12	\$18,122,788

Project	Description	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
<b>Galleries</b>	<ul style="list-style-type: none"> <li>• South Gallery – drainage and structural</li> <li>• North Gallery – drainage &amp; joints</li> <li>• Diagonal Gallery – drainage &amp; joints</li> <li>• Pump Stn A – drainage &amp; joints</li> <li>• Sludge Rm A – drainage &amp; joints</li> </ul>	Construction	Feb 12	May 12	\$1,353,550
		Design	May 12	July 12	
		Design	April 12	July 12	
		Design	July 12	Aug 12	
		Design	July 12	Aug 12	
<b>Trickling Filters</b>	<ul style="list-style-type: none"> <li>• Trickling Filter 1</li> <li>• Trickling Filter 2</li> </ul>	Investigation	Aug 12	Nov 12	\$700,000
		Investigation	Nov 12	Mar 13	
<b>Mechanical &amp; General Repairs</b>	<ul style="list-style-type: none"> <li>• Digesters 2</li> <li>• Digesters 3</li> <li>• Digester 4</li> <li>• Digester 1</li> <li>• Digesters 5</li> <li>• Digester 6</li> <li>• Buffer Tank</li> <li>• Primary Sedimentation Tanks</li> <li>• Bio- Solids Holding Tank</li> </ul>	Construction	Oct 11	Mar 12	\$4,088,195
		Detailed Design	Feb 12	June 12	
		Investigation	June 12	Aug 12	
		Investigation	Aug 12	Oct 12	
		Investigation	Oct 12	Dec 12	
		Investigation	Jan 13	Mar 13	
		Complete	Nov 11	Jan 12	
		Construction	June 11	July 12	
Design	May 12	Sept 12			
<b>Organics Processing Plant</b>	<ul style="list-style-type: none"> <li>• Demolish &amp; Reconstruct Tunnels</li> <li>• Repair &amp; Strengthen Process Hall</li> <li>• Repair Hard Standing</li> </ul>	Detailed Design	Mar 12	July 13	\$9,518,133
<b>TOTAL</b>					<b>\$45,951,951</b>

## 6.4 Burwood Landfill

Project	Description	Material Received (tonnes)	Material Processed (tonnes)	Phase	Estimated Construction Start	Estimated Construction End	Estimated Cost
<b>Burwood Landfill</b> Liquefaction and Infrastructure Rebuild Waste Disposal	<ul style="list-style-type: none"> <li>Prepare areas for disposal</li> <li>Operate and maintain disposal site</li> <li>Restoration and landscaping</li> <li>Resource consent application</li> </ul>	307,000	307,000	Completed	Feb 11	Jan 12	Self Funded
				Completed	Feb 11	Jan 12	
<b>Burwood Landfill</b> Residual Demolition Waste Disposal	<ul style="list-style-type: none"> <li>Design of new cell for residual waste</li> <li>Cell construction</li> <li>Operate and maintain disposal site</li> <li>Restoration and landscaping</li> <li>Resource consent application</li> </ul>	0	0	Design	Oct 11	Mar 12	To be funded by Transwaste Canterbury
				Design	Mar 12	Aug 12	
				Design	Sep 12	Dec 17	
<b>Burwood Resource Recovery Park</b> Demolition Sorting and Processing Facility	<ul style="list-style-type: none"> <li>Construct areas for storage of material and associated roading</li> <li>Design of sorting plant</li> <li>Construction of sorting plant</li> <li>Sorting operation</li> <li>Rehabilitation and landscaping</li> <li>Resource consent application</li> <li></li> </ul>	280,000	0	Complete	Feb 11	Jun 11	To be funded by Transwaste Canterbury
				Design	Mar 11	Feb 12	
				Design	Mar 12	Aug 12	
				Design	Sep 12	Dec 17	
				Design	Jul 17	Dec 17	
Submitted	Oct 11	Mar 12					
<b>TOTAL</b>		<b>587,000</b>	<b>307,000</b>				

## 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.

	At Ground Level	Below Ground Level	Totals
Total number of active wells			154
Wells yet to be repaired <sup>+</sup> *	42	64	106
Cost Estimate all repairs <sup>+</sup>	\$4,692,000	\$16,591,000	\$21,283,000
Wells repaired to date <sup>+</sup> *	61	62	123
<b>Cost to date<sup>+</sup></b>	<b>\$2,296,801</b>	<b>\$2,976,386</b>	<b>\$5,273,187</b>

+ includes replacement wells

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