

Report No:	RESC11-09-07
File No:	
Date:	2 September 2011
Information Only – no decision required	

REPORT SUMMARY

Report to: Engineering Services Committee
Meeting Date: 15 September 2011
Report Author Jeff Cuthbertson, Utilities Asset Manager
Subject: **Utilities Report**

EXECUTIVE SUMMARY

This report provides a summary of the Utilities activities for July 2011.

Overall the contractor Downer performed well and undertook all proactive, routine and non-routine maintenance on the water/wastewater treatment plants, pumpstations, reservoir sites and stormwater assets as scheduled.

In solid waste operations contractors are generally performing well with some challenging conditions due to recent construction activities and wetter than normal weather.

Capital projects are steadily progressing and are generally on track. Tenders awarded during this reporting period are described at the end of this report.

RECOMMENDATION/S

That the report be received.

DRAFT RESOLUTION

THAT the Engineering Services Committee receives the Utilities Report, RESC11-09-07

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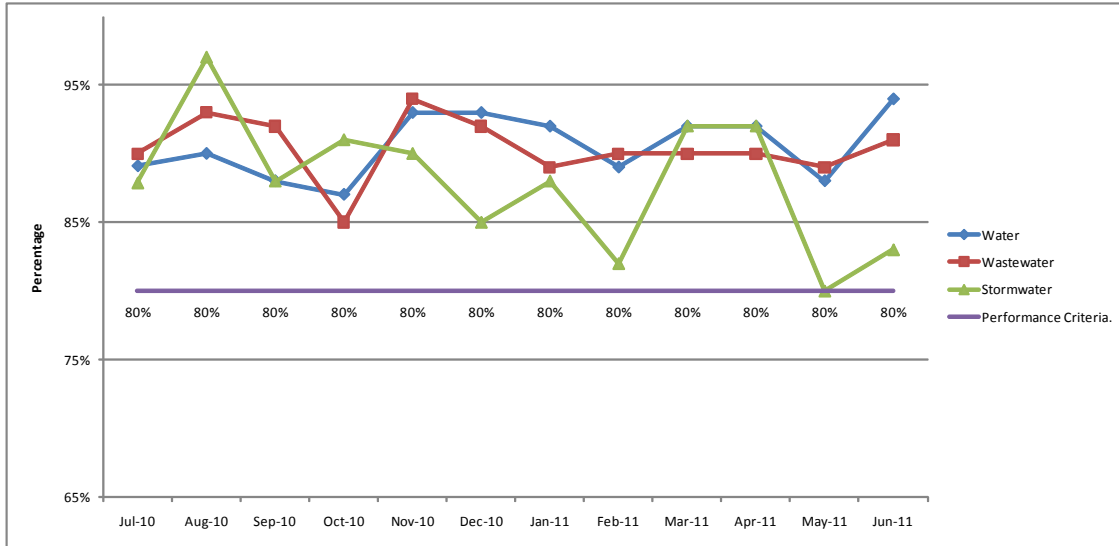
1. Utilities General

- 1.1 The Utilities maintenance contractor Downer has now successfully completed the first 12 months of the second operations period of Contract 688: Water Utilities Operations and Maintenance. A significant renewals programme was completed via the maintenance contract, and these projects have, in the majority of cases, been well managed and implemented. Some delays occurred in the implementation of some electrical/telemetry work, however the additional pressure placed on the contractor's resources did not affect their reactive and proactive maintenance performance.
- 1.2 Downer undertook all proactive, routine and non-routine network maintenance on the water and wastewater treatment plants, pump stations, reservoir sites and stormwater assets as scheduled and required within their July 2011 programme.
- 1.3 MWH carried out audits across all areas of the Utilities network on both ongoing and completed work. In the majority of cases Downer have performed well and therefore achieved their performance-based payments over the 2010/11 contract year.
- 1.4 Downer continue to perform well on the general reactive and proactive work undertaken within the contract. This is highlighted on the graph below which shows their audit scores for the 2010/11 period. It can be seen that scores have been consistent (at or above 80% target) over the three water networks maintained.

Contract 688 Performance Measurement Audit scores July 2010 to June 2011

	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11
Water	89%	90%	88%	87%	93%	93%	92%	89%	92%	92%	88%	94%
Wastewater	90%	93%	92%	85%	94%	92%	89%	90%	90%	90%	89%	91%
Stormwater	88%	97%	88%	91%	90%	85%	88%	82%	92%	92%	80%	83%
Performance Criteria.	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%

Contract performance standard measurement target requirement is to achieve a minimum score of 80% in any one discipline.



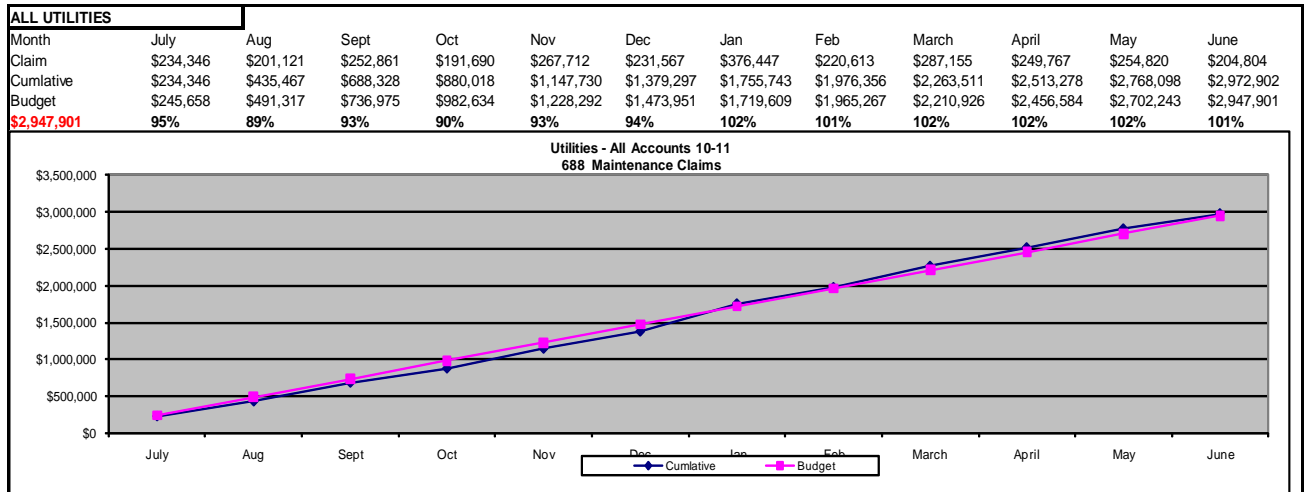
1.5 Customer Services - Job Completion

Targets and requirements under Contract 688 are for the contractor to achieve 90% or above for completion of allocated jobs on time. The contractor has consistently achieved the required target and managed to achieve 92% for May and 93% for June 2011.

1.6 Throughout the 2010/11 year, 3427 customer service requests were raised. At year end 3240 had been completed and the outstanding requests will be completed in July/August.

1.7 Financial Performance

As shown in the graph below, the overall Utilities expenditure tracked very close to the estimated budget. Additional capital works undertaken include electrical/telemetry upgrade projects. Some maintenance cost increases were due to additional proactive and reactive work related to prolonged adverse weather.



- 1.8 Significant work has been undertaken toward upgrading the Confirm asset management system to provide a seamless work request/issue, reporting and processing of work claims for Contract 688. The new upgrade was successfully rolled out in August and has involved a large time commitment for staff from Council, MWH and Downer.

2. WASTEWATER NETWORKS

2.1 Operations and Maintenance

The majority of the wastewater networks have performed well during the last reporting period, however the high levels of natural groundwater have resulted in continued higher inflow and infiltration, and caused various issues at some treatment plants.

- 2.2 During this period environmental and performance monitoring was routinely undertaken at all Tasman District Council operated Wastewater Treatment Plants (WWTPs).
- 2.3 The wastewater reticulation system has on the whole performed well, with the majority of pipe breaks and or blockages being of a minor nature.
- 2.4 As the Sewer Overflow Summary Table indicates, a large proportion of the pipe breaks/blockages occur on the Tata Beach/Pohara/Takaka system. This area of pipeline is known to have issues and there is a planned replacement of the old pipes over the next 10 years.
- 2.5 The increase in pipe breaks/blockages in 2010/11 is partially the result of increased reporting accuracy. High rainfall and significant flooding events during the period have also contributed to the increased pipe break/blockages.

Table 1 Sewer Overflow Summary

Scheme Location	Pipe blockage/break		Pumpstation faults		Flooding	
	No.	m ³	No.	m ³	No.	m ³
Kaiteriteri-Riwaka	3	4				
Mapua-Ruby Bay	12	20				
Motueka	14	8	6	2		
Murchison	1	2				
Takaka, Pohara, Tata Beach	29	19	8	17		
Richmond	16	20	1	5		
St Arnaud	2	2				
Collingwood	2					
Brightwater, Wakefield, Hope			2	8		
Total 2011-2011	79	75	17	32		
Total 2009-2010	52	560	17	11	2	60

Table 2 Wastewater Blockages/Pipe Breaks/Overflows

Location	What	Why	Remedial Action
Upper Takaka	Sewer backed up, but no overflow	Biofilter fan malfunction, circuit breakers tripped, no alarms	Downer fixed.
Motueka	Sewer backed up and overflow	Pumps blocked at pumpstation	Pumps unblocked, area cleaned
Mapua	Burst 80mm main	unknown	Repair completed
Richmond	Wastewater is backing up in private line	Suspected damage from previous cabling work at the property	Advised about carrying out CCTV
Richmond	Sewer Overflow	150mm main blocked	Unblocked and cleaned up
Richmond	Dumpstation overflow	Downstream pipe blockage	Blockage cleared, overflow cleaned up

2.6 Capital Projects

Sewer renewals contracts for Motueka have been awarded to Tasman Civil. Works include the sewer pipe upgrade through Lowe Street and north along High Street towards Whakarewa Street. This portion will commence after the Rugby World Cup. The project also includes sewer renewals along York Street and Boyce Street which are due to commence first. Moffat Street is likely to commence early in 2012.

2.7 The tender for the Murchison Wastewater Pumpstation Upgrade has been awarded to Ching Contracting. Work has commenced on the Hotham Street pumpstation and work is expected to start at the Waller Street pumpstation in September.

2.8 The Pohara Sewer Gravity Main Upgrade contract has been awarded to Ching Contracting and is work expected to commence in September.

- 2.9 Mapua Wharf Wastewater Pump Station Upgrade – The detailed design is complete and due to go to shortlisted tenderers for pricing. Processing of the required resource consents for the work continues and approval is expected in the very near future.
- 2.10 Contract 816 (Motueka Stormwater Improvements - High Street) which was constructed by Ching Contracting has been completed. The works included replacement of some sewer mains in High Street (between Poole and Inglis Streets) and in Eginton and Fearon Streets. The project now enters its defects liability period.
- 2.11 The tender for the replacement of the discharge drainage at the Murchison Wastewater Treatment Plant has been awarded to Fulton Hogan and work is expected to commence in September.
- 2.11 The Takaka Wastewater Treatment Plant Working Party has met on five occasions. The Working Party has reviewed several options and made good progress.
- 2.12 The Working Party is now seeking further information relating to the specific ground hydraulics around the proposed final effluent disposal system. Council gained resource consent to undertake this groundwater testing. Testing of a Rapid Infiltration Basin (RIB) commenced on 1 August 2011 and has now been completed. Once the results have been reported back to the Working Party, a programme of consultation and a report to the Engineering Services Committee will be completed.





3. WATER NETWORKS

3.1 Operations and Maintenance

The majority of the urban water supply networks have performed well over the July period.

3.2 New Water Connections - one each in Richmond and Tapawera

Table 3 Water Supply Exceptions

Location	What	Why	Remedial Action
Hill St, Williams-Queen	Burst water main lifted seal	100mm AC main burst	2.7m section replaced
Win Valley, Blackbird Valley	Disruption to supply	Burst 40mm mains	Repaired with new section of pipe.
Old Neudorf School House	Overflowing/leaking lateral	Connection bypassed restrictor	Bypass removed and restrictor reinstated at boundary
190 Stafford Dr, Mapua	Damage to footpath and road from burst main	Burst 150mm dia main	Repaired with new section of pipe, under difficult conditions.
Gladstone Rd/Church Street Intersection	Burst 75mm main.	Brittle pipe	Section repaired, 50mm gate valve installed
Mapua – Aranui Rd	Water leak ongoing near Wastewater pumpstation	Leaking timer adjacent to RPZ	Isolated and repaired

3.3 Capital Projects

- 3.4 Queen Street and Valhalla Reservoirs – the installation of seismic control valving on the Richmond trunk main near the Upper Queen Street reservoir has been completed and similar work on Valhalla reservoirs is due to commence.
- 3.5 The Tapawera Rising Main Replacement contract has reached practical completion. The contract now enters into a 12 month period of defects liability.
- 3.6 Land negotiations for the Richmond East Reservoir and pipework have continued. Alternative access options have been investigated and evaluated. Resource consents and detailed reservoir design also continue.

4. STORMWATER NETWORKS

4.1 Operations and Maintenance

July 2011 saw a tapering off of rainfall throughout the region. Record volumes were recorded in May/June, particularly in May in some locations. Precautionary storm checks were undertaken as required during the month.

- 4.2 Routine maintenance undertaken on drains throughout the region has been to an acceptable standard.
- 4.3 New stormwater connections - two in Richmond.

4.4 Capital Projects

Ruby Bay Stormwater (Tait Street and Stafford Drive) – The tender for this work was awarded to Ching Contracting. The tender included three separable portions, but due to higher than expected contract rates only the first portion has been awarded (a new outfall at Tait Street and a low pressure stormwater line from Stafford Drive). Council staff have negotiated a cost reduction with the contractor and decisions on further work will be made later in the year.

- 4.5 Motueka Stormwater Upgrade (High Street) – This project has been completed in conjunction with wastewater pipe replacement. The contract now enters a defects liability phase.
- 4.6 Kotare Place Stormwater Upgrade project – detailed design is nearing completion and the project is expected to be tendered in September.

5. TELEMETRY

- 5.1 Analogue telemetry – The network has performed well over this reporting period and there are no significant issues or anomalies to report.
- 5.2 The base station has operated well over the past six weeks. A significant change has been implemented to the base station relating to how users access the system. This allows greater control with access levels and will improve the security of the server and its software.

- 5.3 New sites have been added to the system at River Road Pumpstation, O'Connor's Creek, Golden Hills, Upper Queen Street Reservoir and Pumpstation and Mapua-Pomona Road Reservoirs. These sites have been working well and now provide greater detail and functionality.

6. SOLID WASTE

6.1 Kerbside recycling and bag collection

Management of kerbside operations continues at a high level with 100% of enquiries resolved on time by the contractor over the last five months. Kerbside recycling volumes however have continued to drop.

- 6.2 Glass exports to Auckland have recommenced now that site works at the Richmond RRC are nearing completion. The temporary tipping pit created at this site is now being utilised for glass storage and loading.

6.3 Resource Recovery Centres

Site development at the Richmond RRC is now largely complete, with landscaping and minor works remaining. Feedback from the general public, site operators and commercial operators has been positive.

- 6.4 Minor drainage works at the Mariri Resource Recovery Centre are complete, although some minor leachate issues remain. These are a result of an exceptionally wet May and June and work to find a solution continues.

- 6.5 Further work scheduled at Mariri this year is the development of a recycling drop-off area on the lower section of the site. This work will separate recycling and refuse drop-off and is expected to improve waste diversion and safety for users of the site.

- 6.6 Site development plans are currently being finalised for Takaka, Collingwood and Murchison.

6.7 Eves Valley Landfill

Waste volumes to the Eves Valley landfill (excluding special waste) decreased in July when compared with the same month last year. Special waste quantities for July were larger than normal due to the development of the Richmond RRC.

- 6.8 Stormwater upgrade works have recently been completed at the landfill site. The three existing silt retention ponds have been amalgamated into a single, enlarged pond and clean stormwater flows have been diverted away from the sediment control system. When combined with a proposed flocculent system, these improvements will significantly improve sediment capture.

- 6.9 Improvements are also scheduled for the controls of the leachate collection system. Leachate from the landfill is stored on site and pumped to Council's wastewater system in Brightwater. The work scheduled this year will include installation of telemetry at the landfill and improvements to the pipeline to Brightwater.

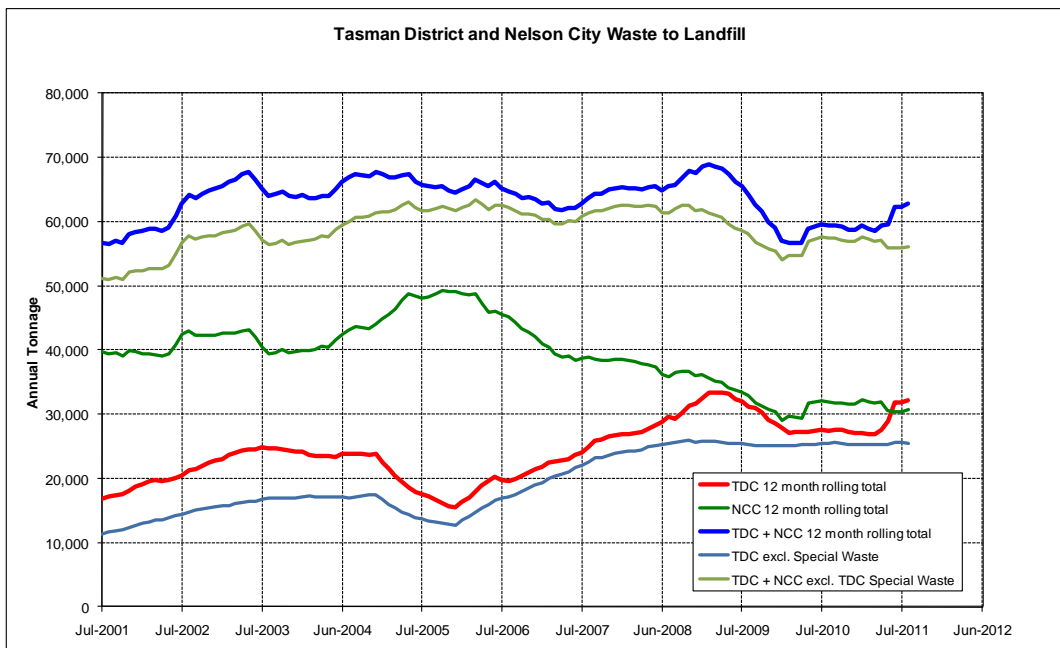


Ev

Es Valley Landfill stormwater improvements

6.10 Regional Waste Minimisation

Regional waste quantities continue to indicate a generally small recovery in waste volumes to landfill. The increase in Tasman waste is due to disposal of waste from the Richmond RRC site development. The decrease at Nelson City Council is a reflection of a one-off disposal 12 months ago.



7. TENDERS

7.1 The following tenders have been awarded since the previous Engineering Services Committee meeting:

No.	Contract name	No. of tenders	Successful tenderer	Amount	Highest amount	Council estimate	Budget for this item	Comment
832	Murchison Wastewater Treatment Disposal System Replacement	2	Fulton Hogan	\$157,526	\$181,085	\$141,455	\$285,000	Tender accepted
846	Motueka Sewer Renewals 2010 – 2011 Boyce and York Streets	4	Tasman Civil	\$403,142	\$564,782	\$472,780	\$640,000	Tender accepted
831	Pohara Sewer Upgrade	4	Ching Contracting	\$264,005	\$301,660	\$256,100	\$203,000	The tender price includes contingencies totalling \$70,504.00.
849	Motueka Sewer Renewals 2010 – 2011 High and Lowe Streets	4	Tasman Civil	\$332,987	\$657,414	\$304,650	\$422,792	Tender accepted
804	Murchison Sewerage Pump Stations Upgrade	2	Ching Contracting	\$508,390	\$519,849	\$524,239	-	Tender accepted
824	Ruby Bay Stormwater Upgrade	4	Ching Contracting	\$835,480	\$1,125,833	\$677,543	\$439,048	Separable portion 1 totalling \$408,710.20 has been awarded.

8. RECOMMENDATION

8.1 That the report be received.

9. DRAFT RESOLUTION

THAT the Engineering Services Committee receives the Utilities Report RESC11-09-07.