

STAFF REPORT

TO: Chairman and Members, Engineering Services Committee
FROM: Jeff Cuthbertson, Utilities Manager
DATE: 11 July 2008
SUBJECT: **UTILITIES MANAGEMENT REPORT**

1 GENERAL

The maintenance contractors have continued to perform well during the last period and operational issues have been kept to a minimum.

Some reasonable periods of rain have occurred during June and July however no significant associated issues have arisen.

A monthly Utilities contract meeting was held on 19 June.

Progress continues to improve the operational performance of the telemetry system with the installation of digital units at the highest priority water treatment sites. The telemetry base station and base radio units have been relocated to the temperature-controlled server room at Council's Richmond office. This has improved the security and serviceability of the equipment, and along with a newly installed and superior radio mast, has vastly improved network access. Proposals have also been received and are being assessed, for the reconfiguration and upgrade of the telemetry radio and repeater network.

2 WATER

2.1 General

Water schemes continued to operate without significant issues. The water cyclical maintenance results confirm the contractors performance and compliance and with their annual programme. This includes inspections of water treatment plants, pumpstation wells, stream intakes and reservoir sites.

The Collingwood main pumpstation chlorinator was overhauled in June, completing the overhaul of all chlorinators for the year.

The following water supply operational issues have occurred during the period:

- break on 200mm AC main from Brightwater wellfield due to tractor plough disease/cultivating work being carried out on private property. The repair took some time to complete with some ongoing issues caused by airlocks in the system.
- mains breaks on Kellings Road(2), and Redwood Valley road caused extra pressure on the Redwoods system; Leaks found on the Moutere Highway were repaired; Some telemetry faults caused issues in supplying Stag Ridge Subdivision until the communication issues were resolved.

- breaks occurred in Roses Road, Dovedale and leaks were found near Wins Valley pumpstation; some other breaks occurring due to recent heavy frosts.
- a significant break on the Champion Road 375mm main temporarily disrupted supply to parts of Richmond, and work throughout the weekend was required to remedy the resulting issues following repair of the break.
- Break on the 150mmAC main from wellfield to the main pumpstation/treatment plant in Murchison, was caused by fence-post disease, the break occurring within 3metres of the well covers; maintenance staff marked out the rest of line to allow the fencing contractor to continue work.
- A break occurred on the 200mm Fearon Street main toward Thorp Street

Other work in progress includes:

- Preparation for installation of upgraded telemetry for new Brightwater reservoir
- Installation of 100mm main in Matai Crescent, Tapawera;
- Extension to main on Hampden Street Murchison
- Improvements to access road to Collingwood Reservoir

2.2 Water Capital Projects

- **Brightwater Reservoir**

Post-tensioning of the pre-cast wall panel units has been completed. The main support columns and roof support beams have been installed in preparation for the roof panels. Pipework has been connected to the new main. The project is on track overall and is expected to be completed by late August.

- **Motueka Watermain Renewal**

This contract has been awarded to Adcock and Donaldson Ltd. The work is to commence by the end of July and is to be completed within eight weeks. Some discussion is underway with Telecom to install cables and spare ducting and some further cost saving from sharing trenches is expected.

2.3 Dovedale and Redwoods Rural Schemes

Both schemes have experienced a number of pipe failures over the last month that have resulted in temporary disruptions of the supply to some reservoirs, with a noticeable number of breaks due to recent heavy frosts. However in general both schemes have continued to operate reasonably well. The Redwoods scheme in particular, suffered temporarily with some significant communications faults, but with management of the telemetry system (polling of data), the operations were returned to normal.

3 STORMWATER

3.1 General

Utilities networks were not significantly impacted this month even though some reasonable rainfall events occurred, partly due to some historical flood prone sites having been recently improved, for instance, with the completion of upgrade works in Collins Road, no flooding occurred.

Routine stormwater maintenance was undertaken in accordance with the annual schedule. Scheduled monthly drain maintenance was completed by the mowing subcontractor. The stormwater cyclical maintenance results received, confirms the contractors performance and compliance and with their annual programme. This includes inspections and cleaning of drains, intake and outlet structures.

Other stormwater works underway include:

- Iwa Street, Mapua – the stormwater pipework extension in conjunction with the roading upgrade project has been successfully completed.

3.2 Stormwater Capital Projects

- **Croucher/D’Arcy/Bird/Elizabeth Streets, Richmond**

This significant contract has been tendered and has attracted reasonable interest. Tenders have now closed and will be evaluated utilising the two-envelope weighted attribute system. The remaining land entry agreements with the Truck Depot are yet to be concluded.

- **Seaton Valley Stream, Mapua**

The resource consent application for the stream works and outlet works was publicly notified on 5 April 2008, with submissions closing on 5 May 2008. A hearing date is yet to be scheduled.

Detailed design of the additional culverts through the causeway is now essentially complete. Additional subsurface investigations are programmed at each of the culvert and/or bridge locations but are contingent on landowner agreement.

Subsequent to the resource consent hearing, the scheduling of works will be reviewed, taking into consideration alternative access arrangements for when the works are being constructed.

- **Faulkners Bush, Wakefield**

Design work continues for some limited channel work in this area. Improvements to drainage works in the Treeton Place area have been completed in conjunction with roading staff.

- **Reservoir Creek – Templemore Drive section**

Resource consent (for channel improvements in this area) has been granted. A tender has been awarded to Adcock & Donaldson with work scheduled to commence on 18 July 2008 and conclude by mid-September. Council staff will be working with the contractor to advise local residents and reserve users of alternative pedestrian access during construction.

- **Collins Road, Richmond**

Downer EDi Works have finished this work and the result is pleasing with no issues during recent rain events since the job was completed.

- **Cornwall Place, Tata Beach**

The tenders for this project were evaluated and a preferred tenderer has been obtained, and the project is ready to proceed as soon as agreement can be reached with affected

landowners.

4 WASTEWATER

4.1 General

The wastewater cyclical maintenance results received, confirms the contractor's performance and compliance and with their annual programme. This includes inspections and cleaning of wastewater treatment plants and pumpstation wells.

All treatment plants were routinely checked during the month and pumpstations cleaned. Even with the occurrence of some reasonable periods of rainfall, operational issues were still minimal.

The following wastewater operational issues occurred during this period:

- A blockage occurred on the Appleby Highway near Three Brothers corner, Richmond; no overflow occurred.
- A blockage occurred in King Edward Street, Motueka; no overflow occurred.
- A break occurred near Matakītaki Bridge, Murchison, moderate overflow occurred, was repaired and cleaned up.
- A break occurred on Abel Tasman Drive, Pohara-Clifton main, and blockage in Richmond Road, small overflows were contained and isolated, and repairs undertaken.
- Aranui Rd, Mapua, main pump station, Pump 1 impellor broken by interaction with rocks in the line, Pump 2 blocked by interaction with cement in the line, took some effort to repair, no overflow occurred.

Other work in progress includes:

- Minor upgrade at St Arnaud WWTP.
- Upgrade of sewer gravity main, St Arnaud.
- Installation of aerators, screen, and associated equipment and cabling at Collingwood WWTP.

4.2 Capital works

- **Takaka Sewer and Pumpstation Upgrades**

Ching Contracting Ltd are progressing well with many aspects of the contract. Work is well underway at the Waitapu Road pumpstation (new site) and at the Primary School pumpstation, and also has commenced at the Burnside site. Over 50% of the rising main from Burnside to Sunbelt is complete and the rising main from the Primary School pumpstation to Waitapu pumpstation, is also complete. The contractor has found groundwater issues to be less substantial than expected and if this continues it is expected the contract will be completed by October.

- **Collingwood, Takaka and Upper Takaka WWTPs De-sludging**

Work is now practically complete for the de-sludging of the oxidation ponds of Collingwood, Takaka and Upper Takaka WWTPs. The total volumes extracted were slightly less than anticipated, resulting in some overall cost saving.

- **Wastewater Reticulation Renewals Projects**

Fulton Hogan Ltd have commenced work on this contract and are expected to be finished by the first week of August.

- **Tapawera Wastewater Treatment Plant Upgrade**

Adcock & Donaldson Ltd are well underway with this contract at the Tapawera WWTP and until the recent period of wetter weather, and more recently the cold temperatures, have progressed well. They have utilised specialised equipment as an alternative method of suitably drying the remaining pond sludge which is proving reasonably effective.

5 SOLID WASTE

5.1 Kerbside recycling and bag collection

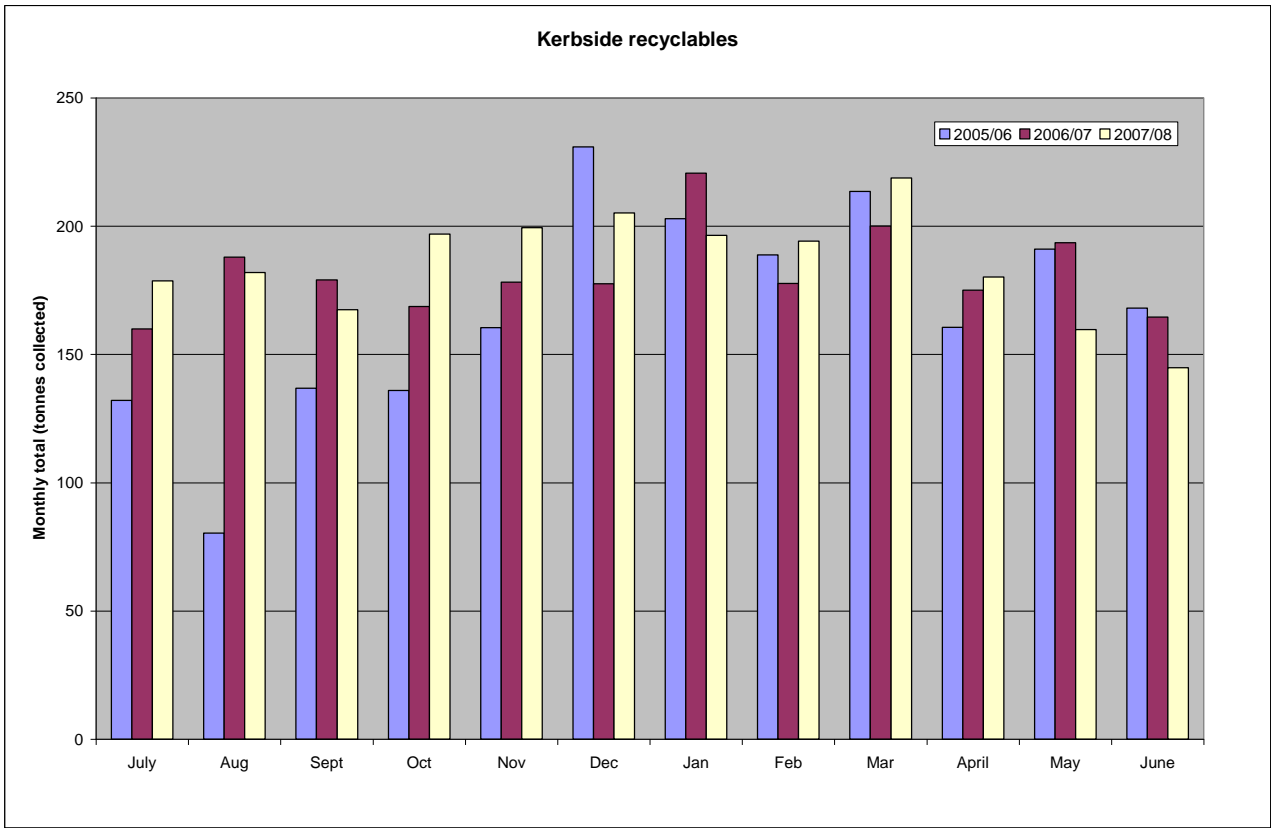
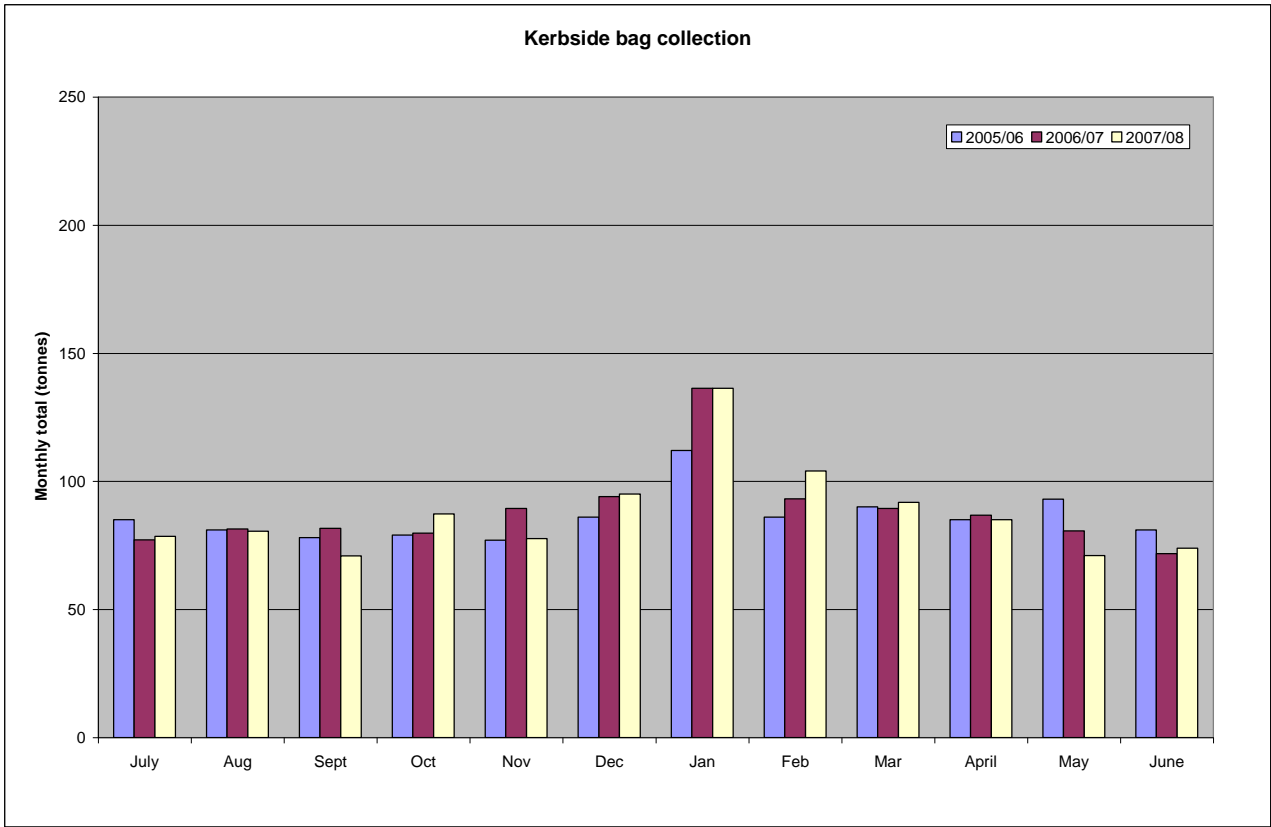
Kerbside collection continued over the period with no significant issues and generally good contractor performance.

Annual tonnages for kerbside collection are shown in the following graphs.

Refuse bag collections over the last year have remained flat when compared with last year while recyclable tonnages have gained 2%.

On kerbside recyclables, glass tonnages increased almost 20% on last year, while other materials collected dropped just over 13%. Staff will be working with the contractor to identify opportunities to increase the non-glass component of the recycling collection.

An agreement has been reached with the contractor to provide an additional paper and cardboard recycling collection for most business properties within the targeted rating area. One 140 litre wheelie bin will be provided to each rateable property in commercial zoning within the Richmond, Brightwater, Wakefield, Mapua and Motueka areas. These bins will be collected weekly and should provide a significant additional service to businesses. The service is expected to start in September and will be funded from existing budgets.



5.2 Resource Recovery Centres

Operations at the five Resource Recovery Centres continued over the period with few issues.

- **Richmond**

This site continues to be particularly busy with annual tonnages tracking 21% above last year's total.

Drainage improvements on the site commenced in June and are expected to be complete prior to the date of the committee meeting. The new works incorporate an advanced sediment control trap to treat stormwater runoff from the site. This device will be evaluated for possible use on other sites, and for general stormwater works.

Remaining scheduled site works have been delayed due to operational issues around the site and it is considered best to incorporate these into other works scheduled for the current financial year.

- **Mariri**

Final refuse quantities for this site indicate a 5% increase of the over previous year. The site continues to be busy, although greenwaste quantities have dropped in recent months to give an annual reduction of 25% from last year.

Recent earthworks on site are now complete. These works have improved the drainage of the site, removed historical waste material and provide a basis for further site works planned this year.

Weighbridge construction and installation is largely complete at Mariri, with calibration of the bridge expected in the upcoming month. Relocation of electrical services and other local improvements are largely complete.

- **Takaka**

Refuse quantities at Takaka this financial year finished 3% higher than last year.

Recent works on site have included provision of additional water supply and storage facilities, and maintenance of existing seal areas.

- **Collingwood**

Refuse quantities at Collingwood finished 10% higher than last year.

This site continues to operate well.

- **Murchison**

Site development works and construction of the transfer facility are continuing. Bulk earthworks on site are now complete, with a new bund formed around the site to screen the activities and protect the landfill cell from potential floodwaters.

Building consent has now been granted for the refuse transfer facility and the pit portion is complete, with roof construction commencing now. Drainage works and improvements to the wastewater system are now largely complete.

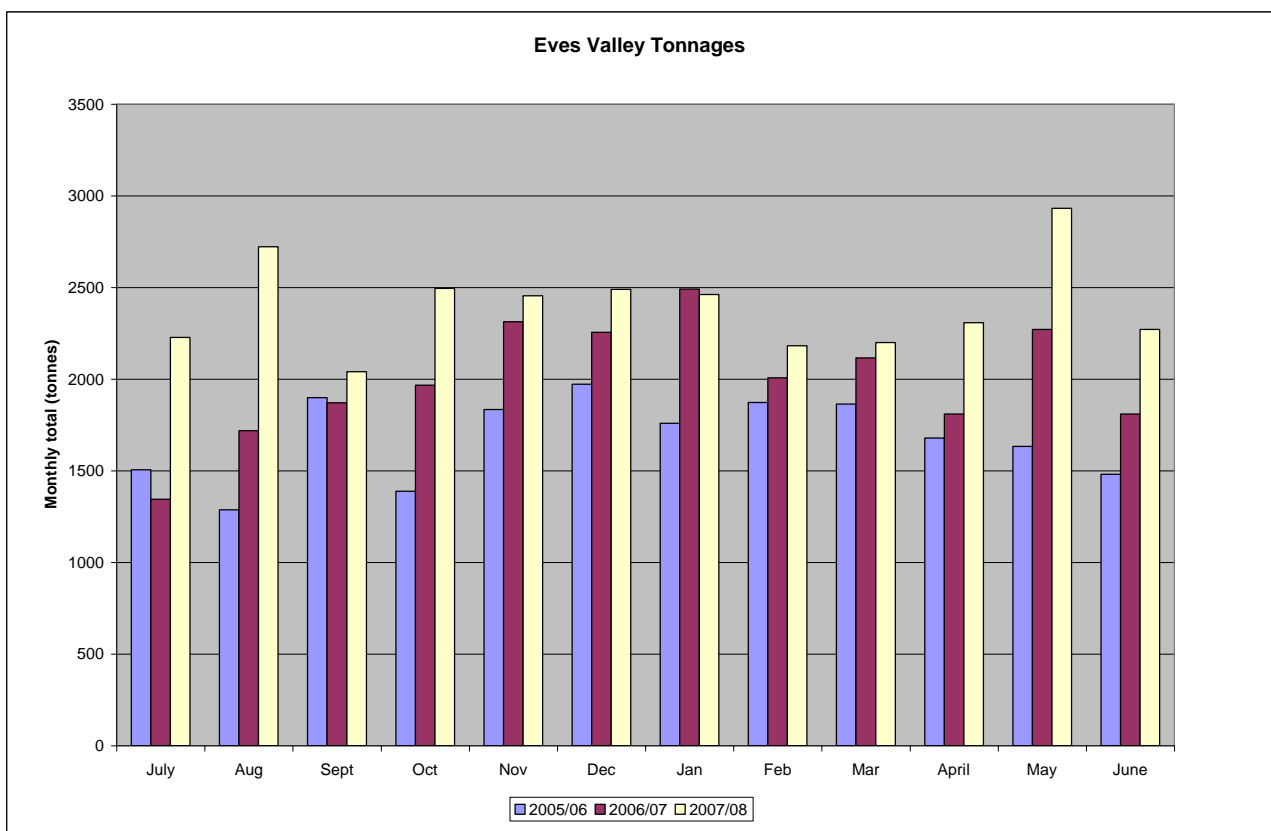
Waste disposal to landfill continues in order to maximise the last landfill cell and to contour

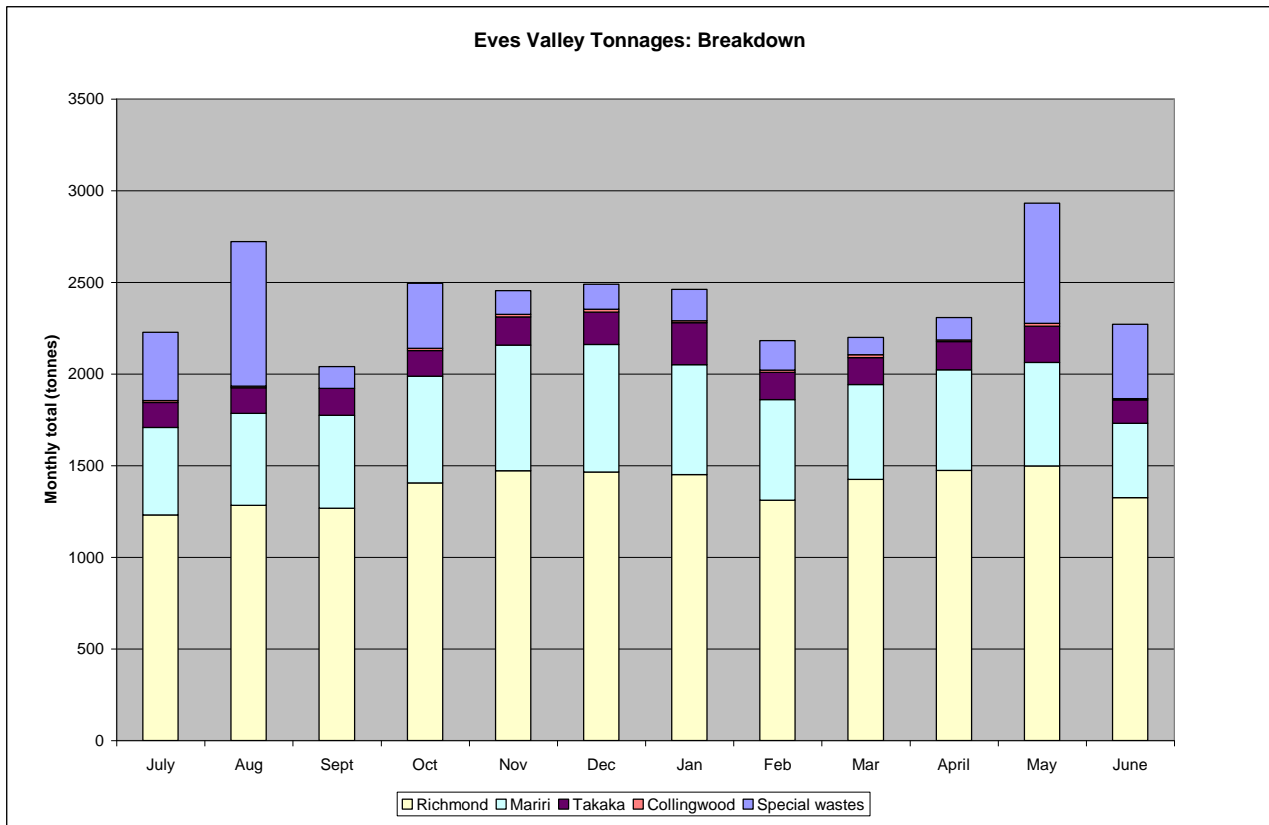
the cap of the cell to shed water. Capping of the cell with clay material will commence once waste transport to Eves Valley commences.

5.3 Eves Valley Landfill

The annual refuse volume to Eves Valley for this year was 28,800 tonnes, an increase of 20% over last year and 42% over the year prior. The main source of this increase is additional special waste (+77%) and waste from the Richmond RRC (+21%); the special waste volume is significantly influenced by disposal of biosolids from the Collingwood and Takaka wastewater treatment ponds.

Full year data is not yet available from Nelson City, but preliminary figures show some reduction of waste at the York Valley Landfill – this volume may well explain the increase of waste at the Richmond RRC.





5.4 Waste Education and Waste Minimisation

The remaining year of a four-year contract with Nelson Environment Centre was confirmed recently, following very pleasing performance by the contractor.

Council staff have finalised a budget with our contractor and Nelson City Council for the proposed upcoming "e-Day". It will be held on 4 October 2008 at ENZA foods on Nayland Road. Promotional material for this event will be available soon.

Waste Minimisation (Solids) Bill and Waste Management Plan

The Waste Minimisation Bill (as it is now named) has completed its second reading in Parliament and is likely to be passed into law soon.

Important aspects of the revised bill identified to date include:

- the introduction of a waste levy on 1 July 2009 (at \$11.25 per tonne incl. GST);
- provision for 50% of levy funds to be provided to local government;
- direction of the remaining levy funds to a contestable fund;

The amended requirements on local government for Waste Management and Minimisation Plans in the bill are being considered by Council staff for incorporation into the proposed joint TDC / NCC Waste Management Plan. The bill as it stands has given Council's additional time to prepare modified Waste Management Plans.

7 TENDERS

Tenders awarded since the last meeting:

No.	Contract name	No. of tenders	Successful tenderer	Amount	Highest amount	TDC estimate	Budget for this item	Comment
735	Reservoir Creek Upgrade	3	Adcock & Donaldson Ltd	\$201,620	\$279,044	\$120,510	\$108,865	Additional funds for this project have been sought from other budgets.
744	Motueka Watermain	3	Adcock & Donaldson Ltd	\$363,398.80	\$416,248	\$363,255	\$360,000	

8 RECOMMENDATION

THAT the report be received.

Jeff Cuthbertson
Utilities Asset Manager