

## STAFF REPORT

**TO:** Chairman and Members, Engineering Services Committee  
**FROM:** Utilities Manager, Jeff Cuthbertson  
**DATE:** 23 July 2007  
**SUBJECT:** UTILITIES MANAGEMENT REPORT

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### 1 GENERAL

The maintenance contract works have continued to be carried out in an excellent manner and most operational issues have been kept well under control. The transition between contracts 508A and 688 has been smooth. Final inspections and audit results of the whole of the network showed all assets to be in a satisfactory to very good condition. In general the overall performance to the end of June 2007 showed a steady improvement. Works Infrastructure have consistently achieved performance rating scores in the mid-80's primarily due to their effective communication, programming and implementation of contractual Operations and Maintenance alongside selected capital improvement work. Contract 508A has now entered into a defects liability period which commenced 1 July 2007 and overlaps 6 months into the new Contract 688.

Minor works to complete the electrical upgrades of the remaining identified water and wastewater sites is underway.

#### Telemetry

To the end of June 2007 the telemetry at a number of Utilities sites has been upgraded, including a number with total electrical and telemetry upgrades. The recent telemetry base equipment upgrade continues to produce improved results and options are being investigated into altering the means of streamlining the return of data to the base.

### 2 WATER

#### 2.1 General

The usage and demand on all water supplies has been typically low for this period. The regular periods of steady rain have reduced pressure on supplies, in particular the rural schemes.

During the recent electrical upgrade of the Tapawera Water Treatment Plant the pumps were run manually to keep the reservoir full. Some temporary loss of pressure was experienced before the system was returned to full operation.

To the end of June the ongoing programme of upgrade work has improved the robustness and reliability of the network, at the same time increasing the overall performance of the systems during the dry summer period.

Programmed work completed in 2006/07 included:

- Richmond: Valhalla pump station control upgrade to telemetry; Cropp Place pump

- station; Appleby Well upgrade; Queen Street Well #4.
- Brightwater: Rider main renewals and valving upgrades Main Road Hope, Lord Rutherford Rd.
- Tapawera: Rider main renewals, pump upgrade to telemetry.
- Murchison: Hotham Street main; Grey Street rider mains; reservoir controls; additional valving; Waller Street renewal.
- Mapua: Pomona Road pump station; Pinehill Heights pump station.

An audit of Datran/Electrical sites and radio communication systems/licences was also completed.

## **2.2 Appleby Well Upgrade**

Works Infrastructure has completed alterations to the Appleby Well in conjunction with the Transit NZ road widening project. The work included well-head alterations and a new valve chamber with upgraded valving, a new steel section beneath Borcks Creek and new fire hydrants.

## **2.3 Brightwater Reservoir**

Building consent has been granted for the construction of the Brightwater Reservoir. The purchase of the required land has been confirmed. The documentation for tendering the project is at draft stage, and the contract is to be tendered once the land designation has been finalised. Construction is planned for the coming summer months.

## **2.4 Dovedale Rural Water Supply**

The scheme has continued to operate within its limits and without significant issues. Major upgrade works continue and the job is near completion. The pipeline renewals are complete with as-built plans yet to come. The Thorn pump station electrical upgrade and reservoir control valve installation are almost complete.

## **2.5 Redwoods Rural Water Supply**

The scheme has functioned well throughout the year with upgrade work including:

- Telemetry/electrical upgrades: Redwoods 1, Golden Hills pump station, O'Connors Creek
- Pipelines renewals in higher pressure zone: Richards Line to Tank 65, Richards-Bright line, McDonald Line.

A complete round of rural restrictor checks has been completed during the year.

## **2.6 Mapua Trunk Main**

Ching Contracting has completed work on site and the project has attained Practical Completion. Installation of the first section from Best Island to Bells Island went well; some difficulties were encountered during the directional drilling portion between Bells and Rabbit Islands. The project was completed within time and budget constraints.

## **3 STORMWATER**

### **3.1 General**

The 2006/07 year was generally dry although there were some significant falls in May and June. Management of the various stormwater systems has improved over the last year with regular spraying and clearing of drains being carried out. Modelling of the network is proceeding and will provide a greater understanding of the condition of the overall stormwater system and allow for targeted improvements to be completed.

The rainfall events in June did not cause significant concerns with the heavier falls being reasonably confined to localised areas. Some flooding was evident in expected locations, some of which have future upgrade works programmed to resolve these issues.

### **3.2 Borck's Creek/Headingly Lane Channel**

Adcock and Donaldson Ltd have commenced the physical works for the next stage of channel widening. The building consent for the pre-cast bridge has been obtained. The excavation work is due to be complete before the end of the month.

### **3.3 Croucher Street/Bird Street/Elizabeth Street, Richmond**

This capital work is scheduled for the 2007/08 and 2008/09 financial years. Additional topographical survey work, asset data checking and liaison with affected parties has commenced. A detailed flow analysis is in progress to finalise preferred options for design.

### **3.4 Kaiteriteri Stormwater Improvements – Martins Farm Road**

Tenders closed for this contract on Wednesday 18 July 2007. One non-conforming and four conforming tenders were received. Prices were above the budget available for this work and are under evaluation. The tender has not yet been awarded.

## **4 WASTEWATER**

### **4.1 General**

The wastewater system on the whole has performed well with the majority of pipe breaks or blockages being of a relatively minor nature. The exception is the section of the Abel Tasman Drive rising main between Cassidy's and Sunbelt pump stations and this section is programmed for replacement this financial year.

Programmed work completed in 2006/07 includes:

- Kaiteriteri/Riwaka: electrical/telemetry upgrade work at Breaker Bay/Tapu Bay/Martins Farm Rd/Riwaka main pump stations.
- Mapua/Ruby Bay: electrical and pumps replaced in Tait's/Aranui Road No 1 pump stations; biofilter and level floats for Higgs-Aranui pump station.
- Motueka: electrical upgrades at 45 and 86 Trewavas Street/Beach front/Totara Park/Motueka Quay/Teece pump stations; Woodlands pumps overhaul.
- Murchison: Waller Street pump station upgrade; treatment pond telemetry.
- Pohara: pumps overhaul at Four Winds/Pohara Valley and Pohara Camp; Delaneys.
- St Arnaud: Pumps overhaul; Kerr Bay VSD.

- Upper Takaka: electrical upgrade; Treatment pond weir.
- Brightwater: Waimea West pump overhaul; Bryant Road Station Upgrade.
- Tapawera treatment plant power supply.

An audit of datran/electrical sites and radio communication system/licences was also carried out.

#### **4.2 Mapua Channel Sewermain investigation**

Works Infrastructure has completed the initial investigation of the existing sewermain located beneath the Mapua estuary between the Mapua Wharf pumpstation and the western end of Rabbit Island. Continuing blockages were encountered and the contractor has progressed as far as allowable under the terms of their resource consent. Once a condition assessment and some further clearing work has been completed a decision on the viable future of the pipeline will be made.

#### **4.3 Motupipi Street Sewermain Replacement**

Works Infrastructure has now completed this contract. The groundwater conditions proved challenging and made progress extremely difficult but to the contractors credit they persevered through to completion and a successful result. Minor site tidy-up works remain to be completed.

#### **4.4 Waitapu Pumpstation**

Negotiations with the landowner have been successful in securing the appropriate size of land required for the upgraded facility.

The physical works tender closed on 13 June 2007 and has been evaluated. The tenders for this work have been declined and it is likely that the work will be re-tendered this financial year as part of a larger combined contract with upgrades of Cassidy's pump station and Takaka Primary School pump station.

#### **4.5 Wastewater Renewals Projects**

The programme of pump station electrical upgrades is complete for the eight highest priority sites.

### **5 SOLID WASTE**

#### **5.1 Kerbside bag collection and recycling**

All of the solid waste, kerbside collection and recycling contracts have continued to operate well this period. Route extensions in St Arnaud, Pigeon Valley, Old Coach Road and Upper Takaka commenced from the week of 2 July.

Streetsmart have commenced a paper and cardboard recycling collection service for schools within the Waimea Basin area. The collection complements the kerbside collection and uses 140 litre wheelie bins which are collected separately. This service is also being rolled out to Council offices, with a view to further extension if successful.

## 5.2 Resource Recovery Centre Operations (RRCs)

Operation of the four RRCs continues with good performance by the contractor.

### Richmond

Delivery and installation of the weighbridge will occur in mid-August.

Three tenders were received for Contract 701 (Richmond RRC Site Improvements). All three tenders were substantially above the Engineers estimate and subsequently all tenders were declined. An alternative scope of works and procurement options is being pursued.

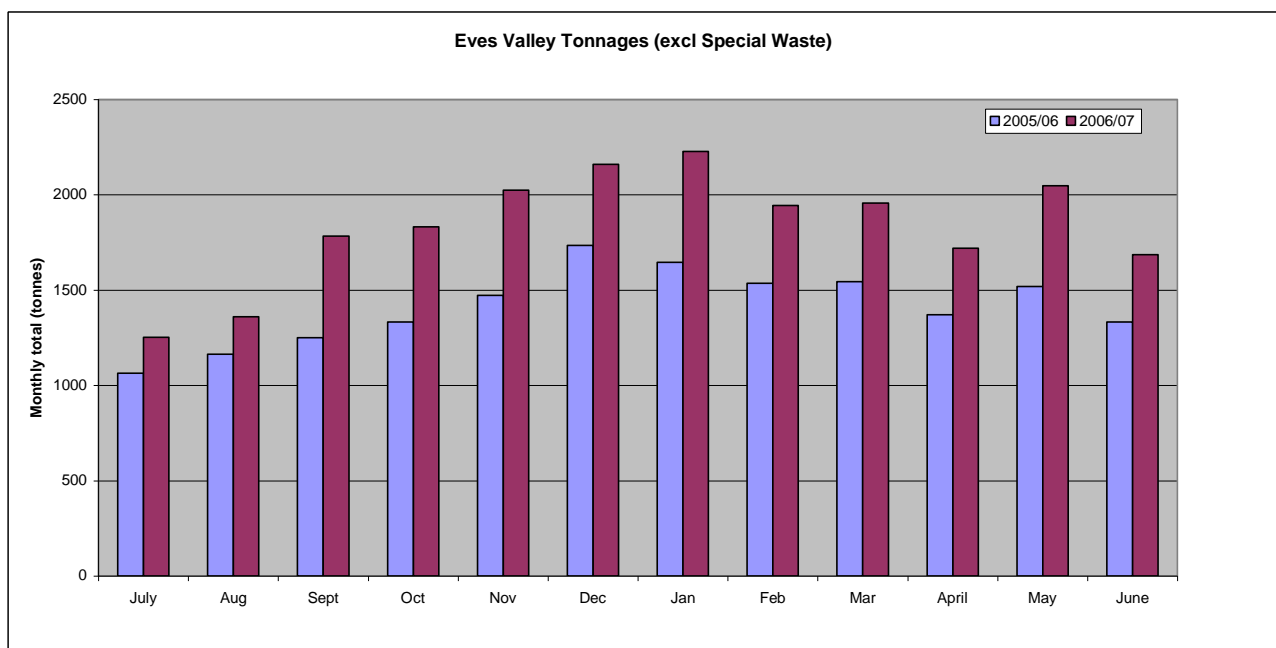
### Mariri

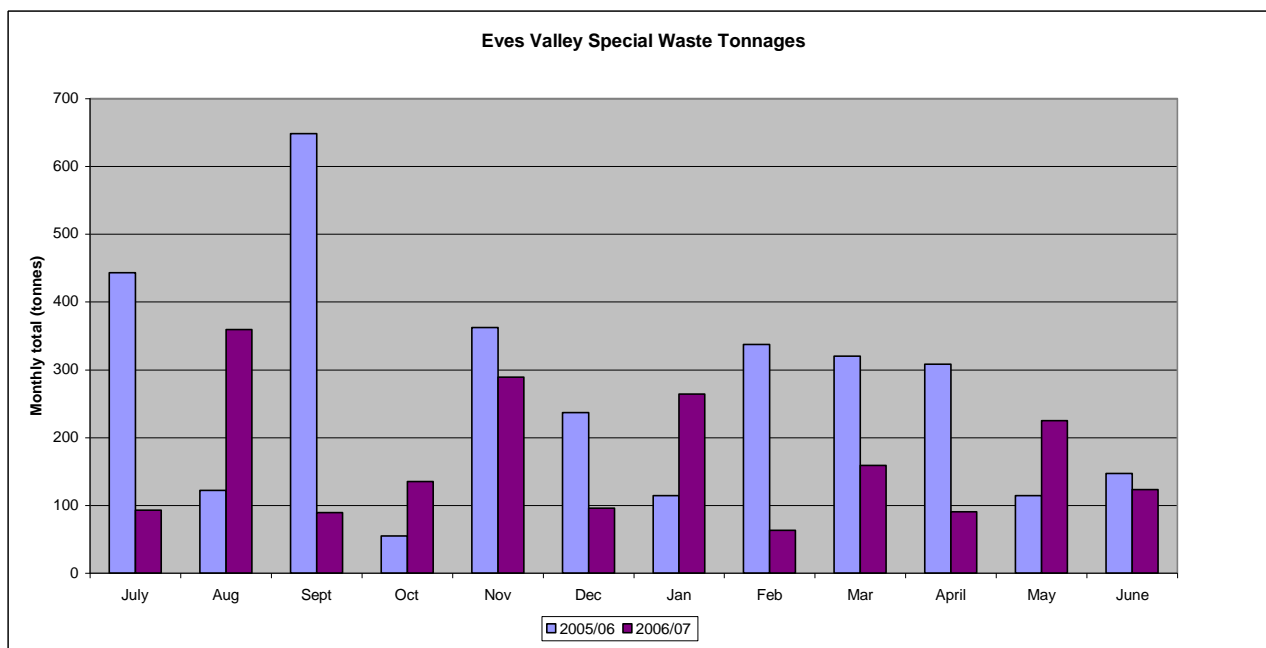
A range of general site improvement works were concluded at site in June.

Weighbridge installation is scheduled for the second quarter of this year and preparatory design for this work is in progress. Firm prices for a weighbridge at Mariri were obtained in conjunction with those for the Richmond site. A number of the site works proposed at Mariri last year have been deferred to work in with the installation of a weighbridge at this site.

## 5.3 Landfill operations

Site operations continue, with no significant issues. The final annual quantity of waste to Eves Valley for 2006-2007 was 23,974 tonnes, a 19% increase on 2005-2006. This increase was almost entirely attributed to an increase of 62% to the Richmond site. Special wastes for the period reduced 38%, largely due to reduced tonnages from the Mapua site clean-up.





#### 5.4 Murchison landfill operations

Landfill operations continue at Murchison with continued good performance from the contractor. The current landfill cell is currently being filled and capped to its final profile.

Tenders for site works at Murchison will be advertised on Saturday 29 July 2007. The tenders will require pricing of two options: construction of a further landfill cell, and construction of a transfer station and a price for collection and transport of waste to the Eves Valley landfill.

Staff will report back to the committee at the next meeting with a recommended option (and associated tenderer) for the further work at Murchison.

#### 5.5 Regional waste management options

The joint NCC / TDC technical working party met on 6 July 2007 and approved a joint paper for consideration by the committee. A copy of the paper is included for consideration as a separate agenda item.

#### 5.6 Contract 613 (Kerbside collection and RRC operations)

Streetsmart were awarded a three-year contract for the period 20 November 2004 to 20 November 2007 with a right of extension for a further three years, subject to acceptable contract performance measures and waste diversion quantities. Streetsmart were advised by the Engineer to the Contract on 4 July 2007 that a contract extension would apply for a further three years to 19 November 2010.

#### 5.7 Contract 652 (Murchison Landfill Operations)

Fulton Hogan Ltd were awarded a two year contract for the period 1 July 2005 to 30 June 2007 with a right of extension for a further three years, subject to acceptable contract performance. Fulton Hogan was advised by the Engineer to the Contract on 27 June 2007

that a contract extension would apply for a further three years to 30 June 2010.

## **5.8 Contract 651 (Waste Education)**

Nelson Environment Centre was awarded a one-year contract for waste education services for the period 1 July 2005 to 30 June 2006. In May last year this contract was extended for a further three years, with annual review.

A review of performance over the past twelve months indicated good progress, with 95% of all agreed performance targets met or exceeded. The contract has been confirmed on this basis.

Significant achievements over the last 12 months included:

- Delivery of education services to 40% more schools and 100% percent more new schools than required.
- Development of seven new resources for schools.
- Twelve articles on waste reduction published.
- Developing a raised awareness of and participation in Council's composting initiatives.
- Identification of the recycling needs of schools and business, and assistance in the development of new services (for example paper and cardboard recycling trials at schools).

## **5.9 Waste exchange (TerraNova)**

A "waste exchange" provides a forum for waste producers to offer unwanted reusable materials to other businesses, individuals or community groups. To date this has been offered through Council's Trashtrader website ([www.trashtrader.co.nz](http://www.trashtrader.co.nz)). A review of the cost effectiveness of this in 2006 indicated that other more effective options were available at equivalent or reduced cost.

On 1 July this year TerraNova (a not-for-profit organisation established by the Christchurch City Council and other interested parties in 1997) commenced provision of waste exchange services in Tasman District. This arrangement will link our district into services offered in Christchurch City, Waimakariri and Marlborough Districts and the West Coast. The service will include three-week long visits to industry and organisations throughout the district, identifying surplus materials and potential recipients.

# **6 COASTAL WORKS**

## **6.1 Old Mill Walkway Coastal Protection - Stage 1**

Good progress is being made with the construction of Stage 1 of these works. At the time of writing, 115 metres of the 175 metres of protection had been completed. The work is scheduled to conclude in September 2007.

## 7 TENDERS

Tenders awarded since the last meeting are:

No.	Contract name	No. of tenders received	Successful tenderer	Amount	Highest amount	TDC estimate	Budget for this item	Comment
709	Motueka Wastewater renewals	2	Adcock & Donaldson Ltd	\$223,726	\$235,283	\$259,380	\$280,000	

## 8 RECOMMENDATION

**THAT the report be received.**

Jeff Cuthbertson  
**Utilities Asset Manager**