

STAFF REPORT

TO: Chairman and Members, Engineering Services Committee
FROM: Jeff Cuthbertson, Utilities Manager
DATE: 4 May 2009
SUBJECT: UTILITIES MANAGEMENT REPORT

1 UTILITIES GENERAL

Downer EDi Works has satisfactorily undertaken all maintenance work on Council's utilities assets during the last period, resulting in the network being well maintained and operational issues being kept to a controlled and acceptable level. The random audits carried out on the networks, have indicated the work carried out to be of a high standard and the contractor achieving high performance based audit scores.

A monthly contract meeting for contract 688 was held on 15 April 2009.

The upgrade of the telemetry system continues with the installation of additional aerials on Council's Richmond and Takaka office buildings, a first step in the development of the digital data network. A hub for Golden Bay data is about to be installed at the Takaka service centre. This will reduce the demand on the single existing Mt Campbell channel and reduce the number of communications failures, particularly in transferring data from Golden Bay utility sites to Richmond. Work is also underway by Mt Campbell Communications and Downer Edi Works to upgrade the remaining less critical analogue sites.

Issues occurred following an upgrade of Qtech software where some sites did not automatically reset - this was quickly resolved without any impact on supply.

2 WATER

2.1 General

- The water schemes continue to operate without significant issues. Some systems have been affected by telemetry communications failures and equipment failures, resulting in temporary low levels or overflowing in some reservoirs. Other pipe breaks and valve/hydrant failures have been the consequence of recent watermain diversion work at the Queen Street/Gladstone Road intersection in Richmond.
- The installation of the 300mm trunk main diversion across Gladstone Road at the Queen Street intersection was completed successfully. The joint effort between Fulton Hogan and Downer EDi Works was carried out during several nights and involved many challenging aspects. The work followed immediately after installation of a new 150mm water main, sewer mains, and 1500/1350mm stormwater junctions.

• **Dovedale and Redwoods Rural Schemes**

No significant issues were experienced in the rural supply schemes with only a few relatively minor repairs, resulting in temporarily low reservoir levels. A localised power surge to the Dovedale area is believed to be the cause of the variable speed drives failing

in Winns Valley pumpstation, requiring the replacement of the printed circular boards and control boards.

Progress is being made toward upgrading Laing's Reservoir. The property owner has recently returned from overseas and has expressed a willingness to work with staff through the various options for the installation of replacement storage tanks.

A burst pipe near Sunday Creek caused issues but the system quickly recovered once repaired. There were some minor problems with airlocks in the system.

Other general issues include:

- Breaks in pipes in Richmond, resulted in low pressure issues in various other areas.
- Leaks in the 88 Valley Scheme caused the reservoir to go to low levels and reduced supply to some properties - investigations continue to resolve the issue.
- Reported radio interference with private radios in Golden Bay has largely been resolved. The issues were primarily due to generally weak radio station signals in the area. The contractor engaged a radio frequency specialist who checked that network frequencies were within allowable tolerances and was also able to work with locals to fine-tune some frequencies of distant radio stations they were attempting to tune to.
- Several leaks were repaired in the 50mm copper rider main of Taranaki Place.
- Re-tests were undertaken following positive *E. coli* results in Upper Takaka. This was resolved with chlorination flushing; causes were unknown with no repeat failures
- The 100mm AC main in Lower Queen Street was repaired several times. The pipe bursts are believed to be the result of the watermain work at the Queen Street/Gladstone Road intersection. Back-pressure on the main will reduce when the intersection work is complete.

Other work includes:

- The 150mm watermain installation across Gladstone Road at Queen Street intersection by Fulton Hogan was successfully completed.
- The Pohara main WTP pump station chlorinator was overhauled during late March.
- Work in McGlashen Avenue/Richmond Deviation now complete.
- Upgrades to the Tapawera and Upper Takaka water treatment plants are ongoing.
- Flow testing of the test bores in Spring Grove – initial results were positive and further flow testing was successful. Chemical analysis of water quality is underway.

2.2 Water Capital Projects

• **Wakefield Reservoir**

Council has received the signed agreement securing the required area of land for the construction of the new reservoir at Wakefield. Tenders have closed and are being evaluated. Land designations amendments are currently being processed.

• **Lower Queen Street/Gladstone Road Intersection Upgrade**

The new 150mm main that was required as a replacement for the existing 100mm AC watermain was successfully installed by Fulton Hogan.

The existing 300mm trunk water main was realigned allowing the existing stormwater box culvert to be removed. The replacement of the pipework involved a carefully managed temporary shutdown of supply. Both shutdowns and installations were carried out at night

to minimise disruption to normal supply.

- **Talbot Street/ Salisbury Road Intersection Upgrade**

The work involved in the roading upgrade of the Talbot Street-Salisbury Road intersection is underway. Watermain upgrade work will be completed as part of the contract, a portion of which has already been installed and has passed pressure testing requirements.

3 STORMWATER

3.1 General

March was generally a reasonably dry month with minimal rainfall, heavy rain warnings were issued but no major issues were reported and no flooding was recorded. Routine maintenance and proactive maintenance was carried out in accordance with the contract schedule.

Some debris in the chamber at Chaytor Reserve, Ruby Bay from seas overtopping the Broadsea Ave seawall resulted in the chamber flapgate blocking. This was cleared and the upcoming upgrade of the chamber will resolve this issue.

3.2 Stormwater Capital Projects

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

The contractor continues to make steady progress on this contract. Work is near completion in the lower section (between D'Arcy Street and McPherson Street). The contractor is now completing works in the McPherson Street area.

Pipe installation in D'Arcy Street has reached Fauchelle Street and installation of pipework in the side streets is well commenced.

- **Seaton Valley Stream, Mapua**

Conditions for the resource consent for these works have now been issued to Council for review and agreement. Sign-off of these conditions by all but one submitter is complete. A final submitter has raised issues surrounding archaeological sites in the area of the proposed works. Council is following up with an archaeological report to assess this issue and report whether consent will be required to obtain a permit from the Historic Places Trust for the work to proceed.

Tender documents have now been prepared and are with Council staff for review. Tenders will be advertised for pricing once consent has been issued. Discussions with immediate neighbours have been instigated to discuss arrangements for the work.

- **Salisbury Road Stormwater Upgrade**

These works comprise design of a new stormwater sewer and additional sumps along Salisbury Road between Arbor-Lea Avenue and Florence Street. A design for this work has been recently priced, and is with Council for consideration. The scope of the design has been reviewed and is included in a separate report. The proposed work has been amended to replace the stormwater sewer from Arbor-Lea Avenue to Waimea Intermediate.

- **Kingsley Place Stormwater Upgrade**

This contract was awarded to Ching Contracting Ltd. Work has just commenced on site and is expected to be complete by late June/early July.

- **Collingwood stormwater upgrade**

This work comprises improvements to the stormwater network in the Gibbs Road area, Collingwood.

Council staff met with local residents and two members of the Golden Bay Community Board in late April to discuss the project.

Tenders for work in Gibbs Road were advertised on 18 April and close on 13 May. Council continues to work with residents for solutions to stormwater issues above Gibbs Road.

4 WASTEWATER

4.1 General

All treatment plants were routinely checked during the month and pumpstations cleaned. Random audits of a selection of the contractor's work indicated the quality of work was of a high standard, and cyclical maintenance results demonstrated good compliance with their annual programme.

Other general issues include:

- Blockages occurred at Whitby Road Wakefield, and Commercial Street Takaka.
- Significant overflow occurred at Waimea College in the 300mm gravity main; the blockage was due to branches and timber in a manhole within the grounds of the school.
- Breaks occurred in the rising main near Motupipi School, Takaka and in the 100mm rising main in Murchison.
- Separate power surges affected systems in Murchison and Takaka.
- Large inflows caused high level alarms at Trewavas St pump station, Motueka, over three consecutive days.

4.2 Capital works

- **Wally's Rest Pumpstation and Sewer Rising Mains Upgrades**

Ching Contracting Ltd has reached practical completion of this contract and have successfully completed some difficult portions of work including working at depths requiring careful management of groundwater.

- **Delanays Pumpstation and Rising Main**

Design has been completed and tender documents are ready to be priced by selected/shortlisted tenderers. The sale and purchase agreement is with the landowner and as soon as Council receives written confirmation of acceptance, the short-listed tenderers will be invited to submit tenders.

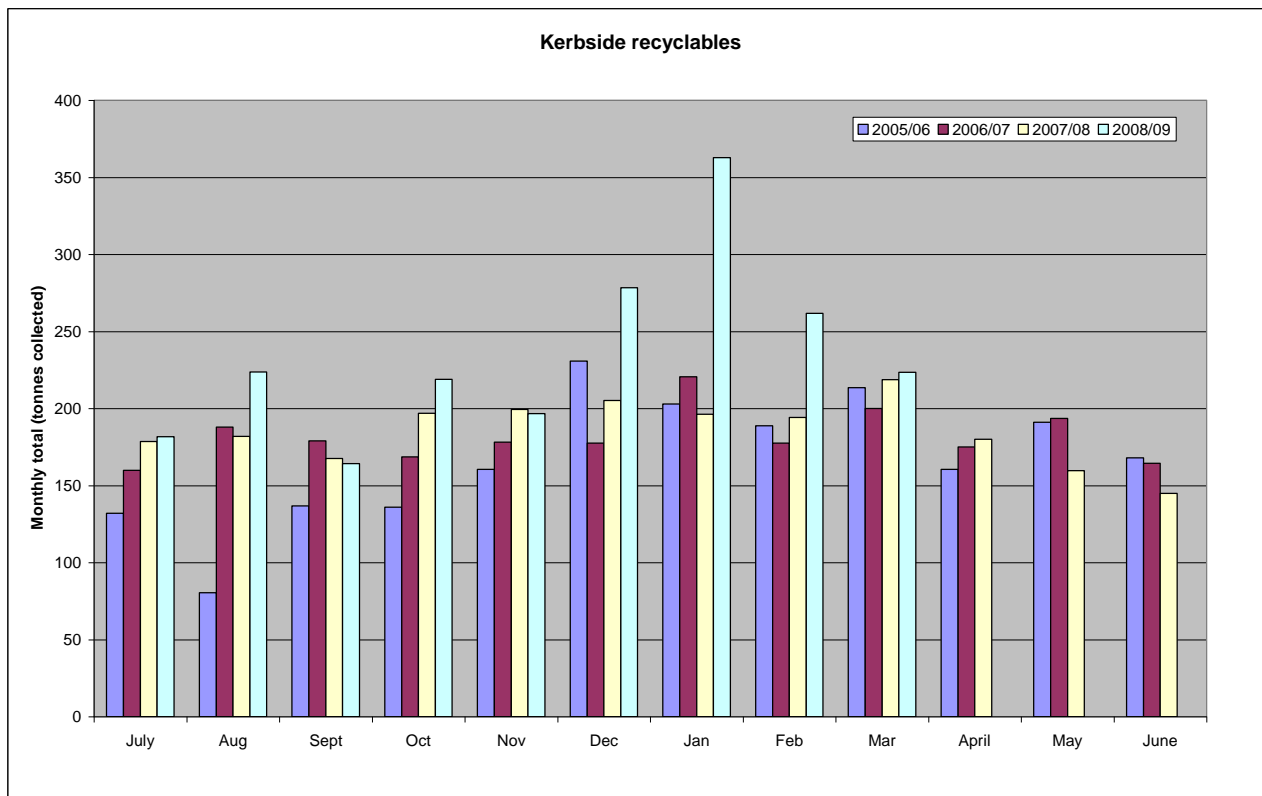
- **Motueka Sewermain Replacements**

The contract was awarded to Ching Contracting Ltd, with construction expected to be commencing in May.

5 SOLID WASTE

5.1 Kerbside recycling and bag collection

Kerbside recycling and rubbish bag collection has continued over the period with good performance by the contractor. Monthly data for the third quarter indicates a significant increase of recyclables collected over the same quarter last year; glass increased 60% and other recyclable materials by 11%.



Council has concluded discussions with the contractor regarding support for low commodity prices and is awaiting a final response. Recent information indicates that commodity prices have recently recovered from extreme lows in December and January and are of less concern than previously.

Council has received preliminary results of a recent kerbside collection telephone survey. This survey was conducted in March and early April, prior to recent publicity surrounding the Draft Ten Year Plan. Staff will update the committee at the meeting if further information becomes available.

Following recent publicity around Council's recycling proposals and proposed increases to landfill charges, Council staff have received enquiries from commercial operators regarding disposal of recyclables to Council RRC's. Staff are looking at how this would be handled through the current contract and what conditions should be applied for acceptance (eg, segregation requirements, contamination conditions, drop-off locations and pricing – if any). Council staff will report back at the next committee meeting with further information.

5.2 Resource Recovery Centres

Operations at the five Resource Recovery Centres continued over the period with only minor operational issues.

- **Richmond**

While this site continues to be busy, waste tonnages have reduced slightly in the last quarter, the first reduction in at least 10 quarters.

Council has received feedback from site operators regarding the proposed changes in site layout and is reviewing the traffic safety issues around the proposed changes. The changes are intended to incorporate a reuse shop at Fittal Street and a new caravan dump site and access to the Waimea Estuary walkway.

Staff will present a revised layout to the committee meeting and further update members.

- **Mariri**

Waste volumes at this site are steady on the previous period last year, with a 5% reduction for the year to date.

Design of stormwater management for this site has been progressed. Tender documents are being prepared for installation of improved run-off control on site. The tenders will be advertised in May with work expected to commence in June.

- **Takaka**

Waste volumes for this site continue to grow steadily, with a 6% growth for the quarter and 9% for the year to date.

Construction of a shed and installation of power at the lower level is now complete. Contractors are currently extending the reuse shop on the upper level to provide additional area for sale of reusable materials. Recent changes to the sale of reusable material appear to be going well, with only minor issues.

- **Collingwood**

Waste volumes for this site continue to reduce substantially, with tonnages reducing 16% over the quarter and 14% on the year to date. Recycling at this site continues to be popular and may be having an impact on waste quantities.

Recent site works at Collingwood include installation of a telephone line, which will increase security at the site, and add the potential to monitor this site out of hours.

- **Murchison**

Landfill operations have now ceased at this site. From 1 May waste has been collected in the new transfer pit and will be transported to Eves Valley on a weekly to fortnightly basis.

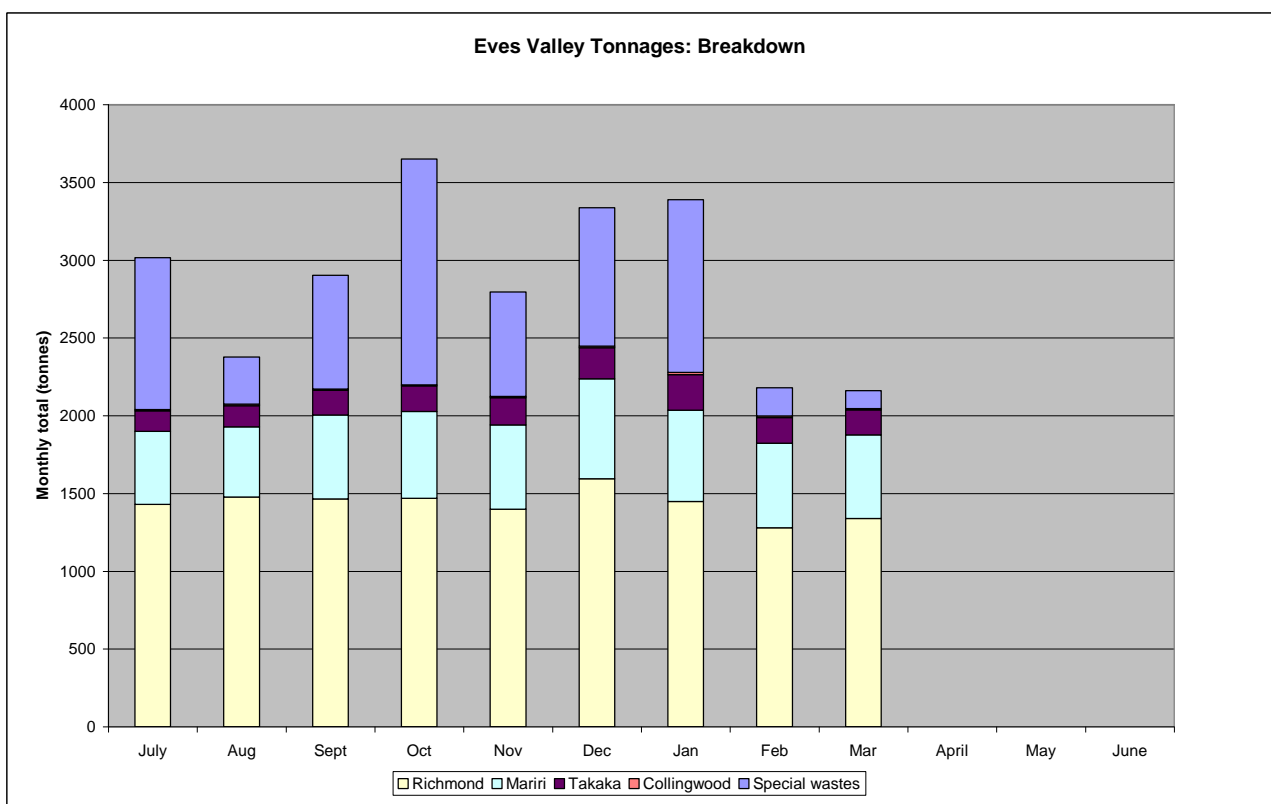
Final capping of the landfill is expected to be complete prior to the committee meeting with landscaping to follow. Improved recycling facilities are presently being constructed.

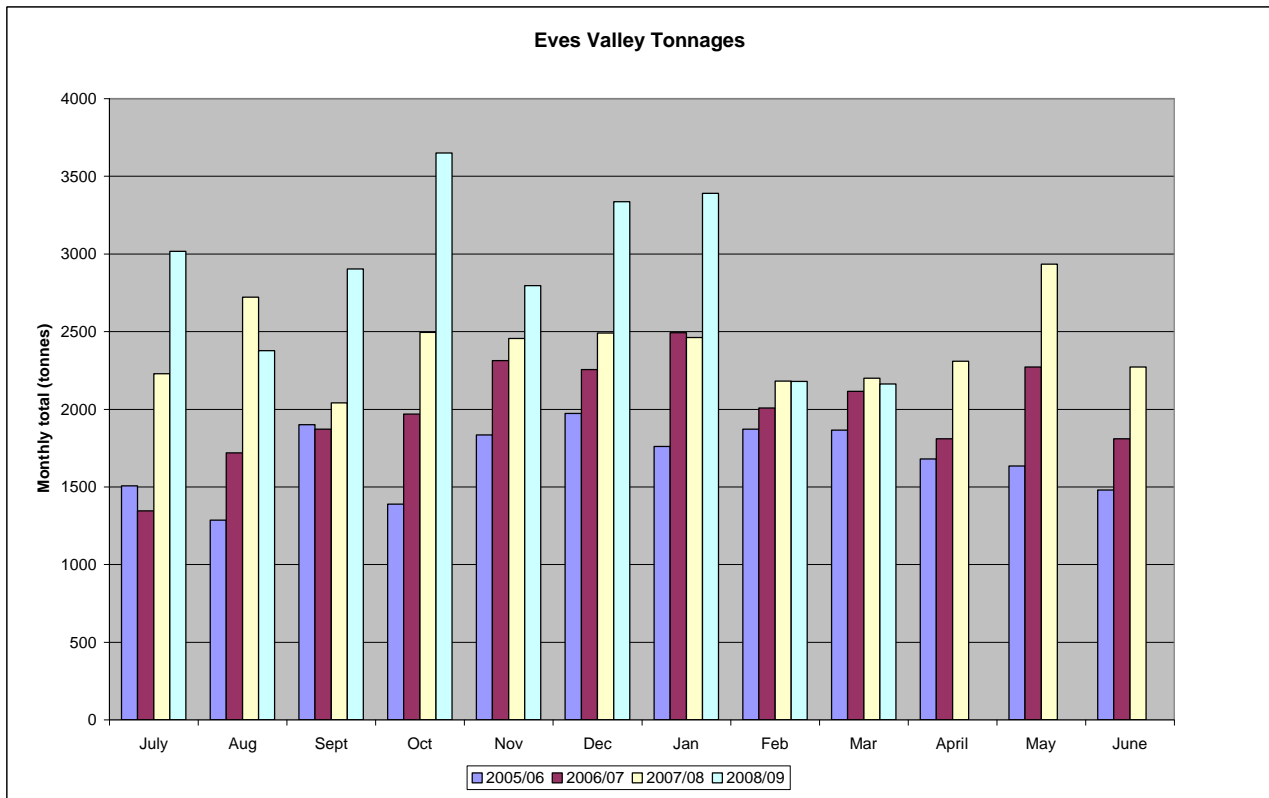
5.3 Eves Valley Landfill

Operations at the Eves Valley Landfill have now returned to a more normal level, with a significant reduction in special waste and landfill volumes more in line with previous years.

Landfill volumes (excluding special waste) for the quarter are 1% less than last year and 2% greater than last year for the nine months to April. Special waste volumes for the year are now running at 275% of last year's total, and for the landfill overall this has resulted in an increase of 21% for the year to April.

The site contractor has been working with Council staff to significantly improve capacity of the landfill to accept waste for the coming winter. The contractor has commenced excavation for the next area of filling and stockpiled cover material for upcoming wet weather.





5.4 Waste Minimisation Act 2008 and joint TDC / NCC Waste management plan

The Ministry for the Environment has released a discussion paper on waste management (“Waste Minimisation in New Zealand”). Staff have prepared a Council submission for this discussion document, which is presented under separate cover.

Recent discussions have been held with Nelson City Council staff, with a view to preparing a joint waste assessment for the Nelson-Tasman region. This step would be the first in the preparation of a joint Waste Management and Minimisation Plan (WMMP).

5.5 Public place recycling

Staff are now finalising a deed between the Ministry for the Environment and Council for installation of public place recycling bins in the district. Bins are in the process of being ordered, with installation scheduled for late June.

6 Tenders

The tenders awarded during this period are as follows:

No.	Contract name	No. of tenders	Successful tenderer	Amount	Highest amount	TDC estimate	Budget for this item	Comment
752	Kingsley Place Stormwater Upgrade	5	Ching Contracting Ltd	\$297,369	\$327,753	\$312,320	\$370,000	Construction work is due to commence
753	Motueka Wastewater Renewals	4	Ching Contracting Ltd	\$550,083	\$563,619	\$568,015	\$587,034	Construction work is due to commence

7 RECOMMENDATION

THAT the report be received.

Jeff Cuthbertson
Utilities Asset Manager