

# STAFF REPORT

**TO:** Chairman and Members, Engineering Services Committee  
**FROM:** Jeff Cuthbertson, Utilities Manager  
**DATE:** 10 March 2008  
**SUBJECT:** UTILITIES MANAGEMENT REPORT

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## 1 GENERAL

The maintenance contractor has continued to perform well over the past month and operational issues have been kept to a minimum. Some issues occurred as the utilities networks came under the pressure of peak demand, however most were of a minor nature and were promptly resolved. The mid-December period of wet weather also provided for some temporary relief for the district's water schemes.

Monthly contract meetings were held on 23 January and 20 February 2008. A further meeting to review aspects of the operations and management contract was held on 31 January 2008 between TDC, MWH and local/national Downer EDi Works staff.

## 2 WATER

### 2.1 General

Water schemes came under less pressure in January and this eased further in February with steady periods of rainfall. Nelson City water supply, via the Champion/Salisbury Road valve/meter, continued to be utilised to supplement the supply to Richmond and showed a reduced impact on the levels of aquifer reserves. Lasting relief came with periods of rain throughout the month of February, allowing restrictions to be lifted.

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

- mains break on Stafford Drive, Mapua - repair undertaken but this required the main to be shut down temporarily;
- ongoing issues at the top of Brookview Heights, Tasman, due to undersized supply pipe; upsizing the line is under investigation;
- breaks in High St, Motueka, due to ongoing issues with low grade pipe materials; upcoming planned upgrades will reduce some of the vulnerability in the trunk main;
- Golden Hills pumpstation, burst pipework caused water damage to the variable speed drive, which has since repaired;
- Pinehill Heights reservoir experienced low water levels due to Mt Campbell communication failures, which were subsequently resolved;
- communication failures caused issues for Old Coach Rd and Pomona Booster pumps, and has been remedied
- *E. coli* transgressions occurred at Fearon's Bush and Wakefield treatment sites during

storm conditions and due to sampler error - follow up procedures showed both sites to be satisfactory;

- a joint fault occurred in the power cable to the Waimea Well #8, which is now repaired.

Leak detection and remedial work continues in Tapawera and Murchison, with pleasing results shown in reduced daily water use for Tapawera, following the discovery and repair of a number of leaks not visible at the surface.

Other work underway includes: Richmond Town centre diversion, Saxton Road diversion, and Richmond/Murchison water meter replacements.

## **2.2 Water Capital Projects**

- **Brightwater Reservoir**

Initial excavation and installation of subsoil drainage is complete. Preparation work to form pre-cast units has proceeded in parallel, off-site. The work is expected to be completed by July 2008.

- **Seaton Valley Main**

Ching Contracting Ltd has completed the portion of work in Seaton Valley Road and through private property to the Pomona Road reservoirs. Construction alongside the state highway between Aranui Road and Higgs Road is 50% complete. The alternative product offered, the higher strength pipe material (O-PVC), has been utilised and feedback to date on its performance, has been positive.

- **Takaka Fire Wells**

Councillors, Community Board members, Fire Service representatives, Council staff and a member of the public attended a meeting in Takaka to discuss the firewell issues.

The meeting resolved that staff will report back to the group within six weeks with the costs and issues relating to each of the options proposed.

A budget for this work is proposed the draft Annual Plan for consideration by the public. If the project is approved, the group hope that firefighting capability could be installed by Christmas 2008.

## **3 STORMWATER**

### **3.1 General**

Utilities networks were not significantly impacted by the recent isolated rainfall events. Highest falls were experienced in Golden Bay and Motueka, with no significant issues resulting.

Routine stormwater maintenance was undertaken in accordance with the annual schedule and flood inspection sites were pre-inspected due to heavy rain warnings. Scheduled monthly drain maintenance was completed by the mowing subcontractor. Further maintenance work was undertaken on the open stormwater drains in Motueka.

Other work underway includes:

- Reservoir Creek: Phase 1 is complete, resource consent is required for Phase 2
- Elizabeth Street, Collingwood - Manhole installation
- Surrey Road stormwater drain improvements
- Collins Road stormwater installation

### **3.2 Stormwater Capital Projects**

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

Detailed design and tender documentation for this work is largely complete. Tenders are expected to be advertised in mid- to late-March. The work will consist of three portions: stormwater works scheduled for 2007/08, stormwater works scheduled for 2008/09 and wastewater works scheduled for 2008/09. It is proposed to award the works as one single contract, to be completed over two financial years.

Resource consents for the work are being processed and agreement has been reached with three of the four landowners affected by the works. Outstanding consent issues are expected to be concluded within the next four weeks.

- **Seaton Valley Stream, Mapua**

An application for resource consent for the stream works was lodged in February. It is expected that the application will be publicly notified, with a public hearing likely. In this event, a decision is likely in late May with works expected to commence in June.

Detailed design for additional causeway culverts is now largely complete. Design of remaining works for this year is currently in progress, with staff considering the optimum option(s) for increasing capacity upstream. Tenders for these works will be advertised and assessed in parallel with resource consent processes.

- **Faulkners Bush, Wakefield**

A detailed survey of the lower area and selected stream channel has been completed. Potential works have been discussed with Parks and Reserves staff, with further design in progress at present. Likely works will include improved inlet capacity in Treeton Place, above the reserve, and selected channel improvements.

- **Reservoir Creek – Templemore Drive section**

Work in this area includes channel enlargement and increased erosion protection to provide increased flood flow capacity. Detailed design is now largely complete, and an application for Resource Consent was lodged in January.

Council staff and consultants have worked closely with interested parties (adjacent landowners, stream care group members and Council consenting and monitoring staff) in the design of the proposed works. The works are scheduled for late April to minimise the effects of the works on the stream environment and users of the adjacent walkway.

## 4 WASTEWATER

### 4.1 General

All treatment plants were routinely checked throughout the month and pump stations cleaned. Stations in holiday locations continued to be checked weekly throughout the holiday period, along with the increased sampling, to meet resource consent conditions due to peak flows and demand at treatment ponds.

The following wastewater operational issues occurred:

- Pipe bursts occurred on Abel Tasman Drive, at Cassidy's Corner, 4 Winds and at Delaney's pump station;
- Blockages occurred in Greenwood Street, and Parkers Road, Motueka; Waverley Street, Richmond; and Waitapu Road, Takaka.

Other works that are under way or recently completed include:

- Mapua sewer flow survey (complete);
- Pump station LEDs installation
- Beach Road, Richmond, installation of connection to discharge manhole, installation of high level probe and alarms in penstock chamber;
- Pumpstation lid replacements – at various locations

### 4.2 Capital works

- **Lodder Lane Sewer Main Replacement**

This contract is largely complete. The pipe-laying work in Lodders Lane as well as the portion across the Motueka Bridge have been successfully completed and passed pressure testing requirements. The construction of the shared off-road cycleway/footpath along School Road is complete, except for the design-build pre-cast units for across the School Road culvert, which is due for completion by the end of the month.

- **Takaka Sewer and Pumpstation Upgrades**

The tender for this contract closed late February. One conforming tender was received. There is a separate report (Pohara Pump Station Upgrade) to seek confirmation of funding for this project to proceed. The contract includes a new pump station opposite the Burnside Road / Abel Tasman Drive intersection, with a replacement pumping main through to Sunbelt pump station. The contract also includes the Takaka Primary School and Waitapu pump station upgrades and replacement of associated rising mains.

- **Wastewater Renewals Projects**

Design has commenced on the next stage of wastewater pipeline replacements in Motueka. The contract is due to be tendered this month.

- **Mechanical Screens: Tapawera and Collingwood**

Three tenders were received for the supply of mechanical screens for the Tapawera and Collingwood wastewater treatment plants, with one alternative tender. The contract was

awarded to Masons Environmental Engineers. There is a reasonable lead-in period required to fabricate the screens and the work is to be completed prior to end of June 2008.

- **Tapawera Wastewater Treatment Plant Upgrade**

Two conforming tenders for the upgrade of the Tapawera WWTP were received in late February. The tenders have been evaluated and await confirmation of final resource consent conditions. Consent confirmation, tender award and contract commencement is expected prior to the end of this month.

## **5 ASSET MANAGEMENT**

Over the last six months Engineering staff have worked to substantially improve Council's asset management systems. This has primarily involved the migration of a number of sources of asset data to a single data set and database.

Current work is focused on improving the accuracy and extent of this data, with the immediate goal of compiling a utilities asset valuation in June 2008. Long-term improvement of the asset management system will allow Council to track and project maintenance costs and better anticipate capital works.

With a view to improving this asset data, a number of additional projects are in progress.

A tender for additional CCTV inspections of wastewater sewers in Motueka and Richmond is currently being evaluated. This work will further inform Council of the condition and serviceability of existing sewers (both older and recently installed) and assist in long term planning for asset replacement.

Hydraulic models of the wastewater, stormwater and water supply networks of the Richmond urban area have now been completed. These models are currently being used to assess growth demands in the wider Richmond area.

## **6 SOLID WASTE**

### **6.1 Kerbside recycling and bag collection**

Kerbside collection continued over the period with no significant issues.

### **6.2 Resource Recovery Centres**

Operations at the five Resource Recovery Centres continued over the period, with no significant operational issues.

- **Richmond**

This site continues to be particularly busy, with seasonally adjusted volumes continuing to increase.

At the time of writing, a preferred contractor had been identified for drainage improvements on the site. Council staff are continuing to work with Council's consultants and the site and

transport contractors to optimise other site improvements to manage increased volumes of refuse and recycling.

- **Mariri**

Site investigations have been completed for the proposed weighbridge at this site. A 12m weighbridge has been selected, similar to that installed at the Richmond site. The bridge is expected to be delivered and installed in late May or early June. Recent works to improve drainage in the pit area improved performance of the site in wet weather.

- **Takaka**

The recyclables storage and baling shed is now complete and has significantly improved recycling operations. A new glass crushing bunker on the lower level is now complete and has been commissioned. This work will move crushing operations away from the public area of the site and will free up the upper level for improved drop-off facilities.

- **Murchison**

Landfill operations continue at this site, using remaining capacity of the existing landfill cell.

Construction of the waste transfer facility is currently on hold awaiting resource and building consents; these are expected within four weeks.

### **6.3 Waste Education and Waste Minimisation**

Waste education activities have continued over the period, with an increasing interest from the wider community noted. The waste education contractor continued to deliver waste management advice to schools, large and small businesses and community groups, with a focus this period on electronic waste and construction and demolition wastes. The contractor has recently organised a workshop for school caretakers to improve waste minimisation at district schools.

The contractor has recently passed the half way point of the three year contract extension of Contract 651 (to June 2009), and will be delivering a presentation for the benefit of the Committee at the coming meeting.

### **6.4 Waste Minimisation (Solids) Bill and Waste Management Plan**

The Local Government Select Committee is due return the Waste Minimisation (Solids) Bill to the house for its second reading on 7 April 2007. The bill will then be debated by the house in committee prior to a third reading and passing into law.

Council staff propose to develop a joint waste management plan with Nelson City Council in the period commencing 1 July.

## 6.5 Public place recycling

A recent amendment to the Croucher Street development will see the installation of one recycling bin for each rubbish bin installed. The net additional cost for these bins has been funded through kerbside recycling budgets.

Further work is in progress to investigate provision of additional recycling facilities in other locations (Motueka, Takaka, Collingwood) and at public events. A funding request application to the Ministry for the Environment, under the public place recycling trial scheme is proposed in April.

## 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   |
|-----|--|----------------|--------------------------------------|-----------|----------------|--------------|---|---|
| 703 | Tapawera<br>Collingwood<br>WWTP<br>Mechanical<br>Screens | 3              | Masons<br>Environmental<br>Engineers | \$87,343  | \$122,920      | \$120,000    | Part of<br>overall for<br>total<br>WWTP<br>upgrades | Part only of<br>total budget<br>for upgrade<br>of Tapawera<br>and<br>Collingwood<br>WWTPs |
| 720 | Desludge<br>Collingwood/Taka<br>ka/Upper Takaka<br>WWTPs | 2              | Conhur Ltd                           | \$583,652 | \$731,231      | \$809,600    | \$695,000   |   |

## 8 RECOMMENDATION

**THAT the report be received.**

Jeff Cuthbertson  
**Utilities Asset Manager**