
Greater Wellington Water

May/June 2004

Operations Group

May/June 2004

Operations Group Review of Operations for the Period Ended 30 June 2004

1. Items of Note

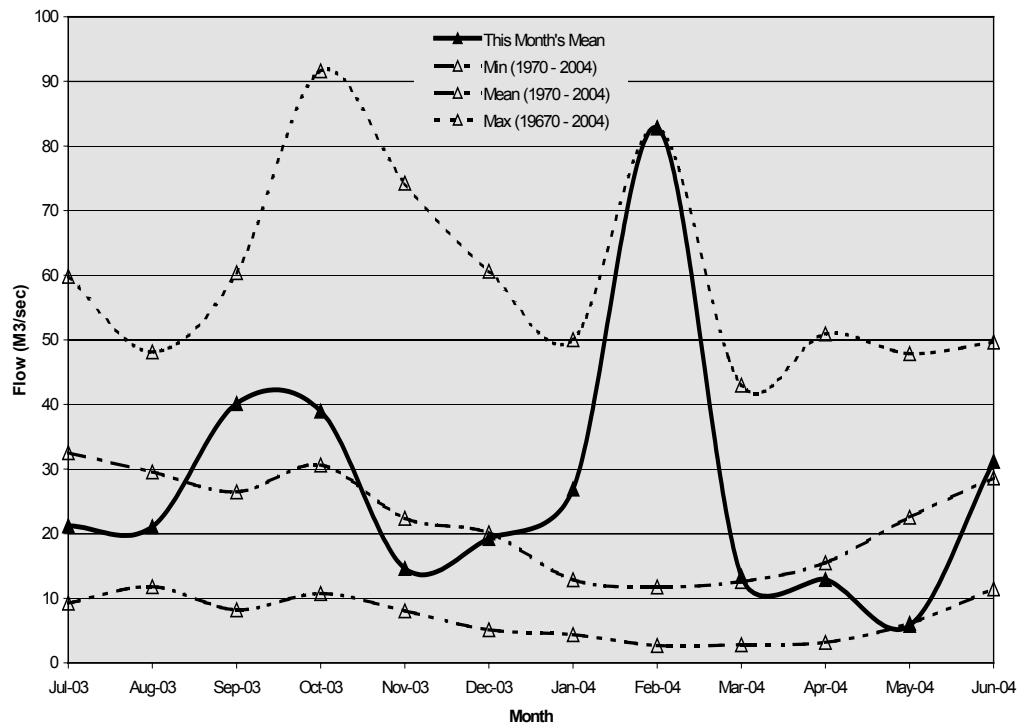
- The removal of sediment from Lake 2 is under way.
- We will be losing a valuable asset in Ross Campbell, Electrical Technician, when he leaves us at the end of the month. Ross and his family have decided to return to Australia.
- Waterloo is still missing its two variable speed pumps but both are due to be repaired and back in service by the end of July.
- June was a busy time as usual but, thanks to some improved systems and the hard work of the administration support staff, the wrap up of projects and asset valuations went quite smoothly.

2. Supply Situation

The Stuart Macaskill Lake 1 is full. There have been no issues with supply for the period.

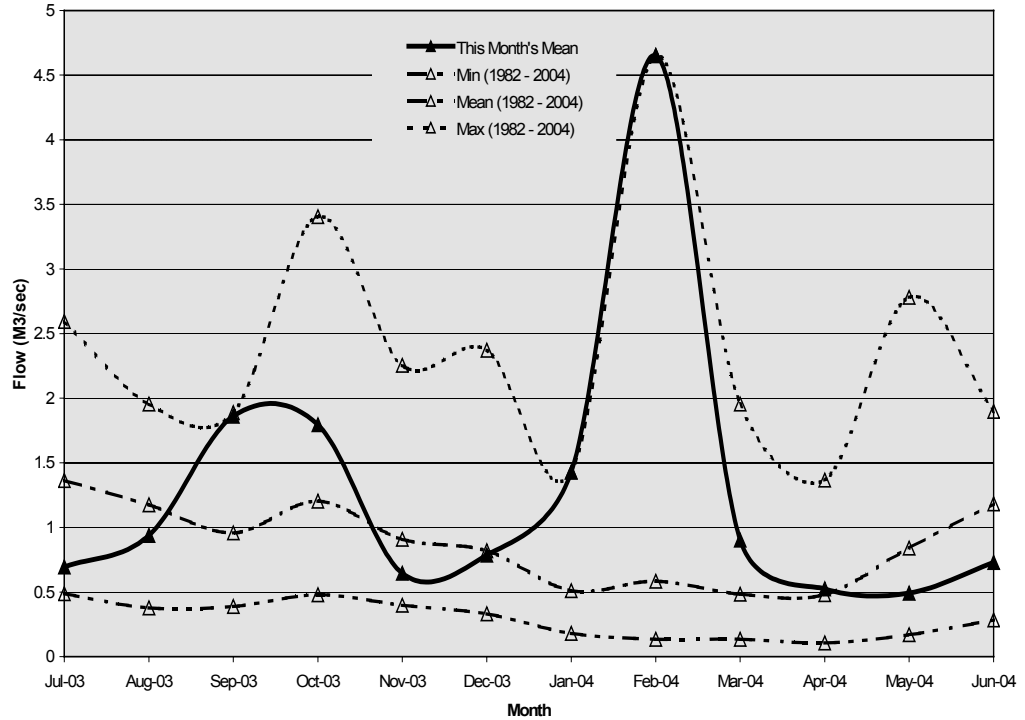
Hutt River Flows

The mean monthly flow in the Hutt River for May was a near minimum and for June was average.



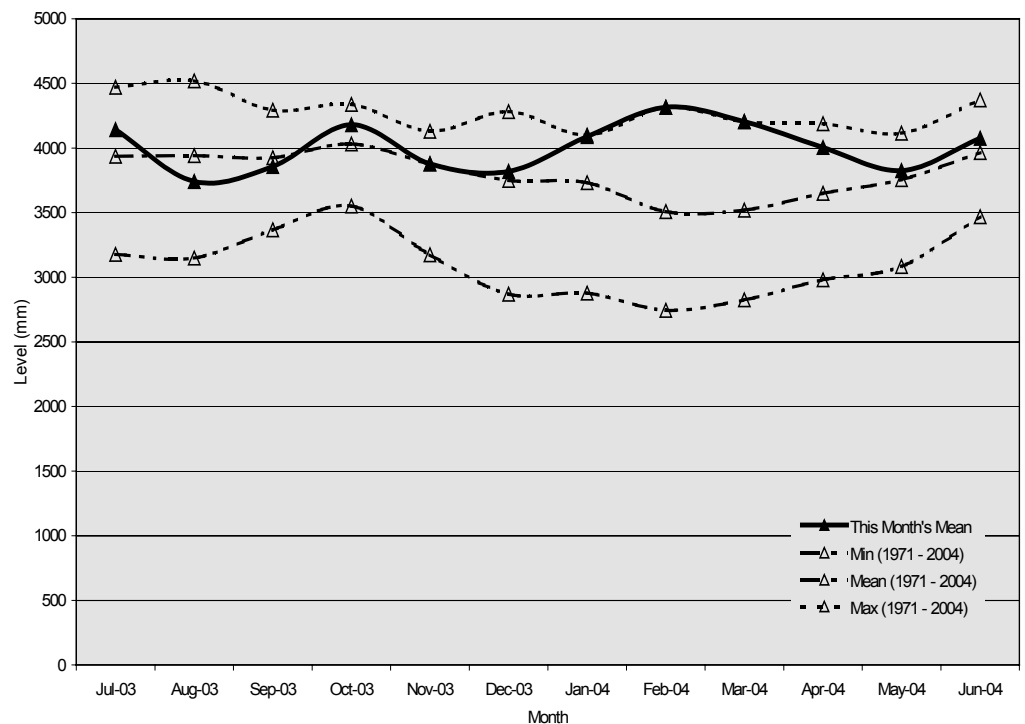
Wainuiomata River Flows

The mean monthly flow in the Wainuiomata River for both May and June was below average.



Aquifer Levels

The water level in the Waiwhetu aquifer was average in May and above average in June.



3. Treatment Plants

3.1 Wainuiomata

3.1.1 Quality

There are no quality issues to report.

3.1.2 Health and Safety

There was one minor injury for the period, being a leg sprain.

3.1.3 Operations and Maintenance

- There were a number of equipment failures during the period, including a lime feeder auger sheared, an inlet valve seized, a float balance valve failed and uninterrupted power supply batteries damaged by a power spike.

3.1.4 Plant Tours

There were two tours during the period - one for an NZWWA telemetry group and the other a group of overseas engineers from Beca Carter Hollings and Ferner Ltd.

3.2 Waterloo and Gear Island Water Treatment Plants

3.2.1 Quality

- pH control problems have continued since losing the second variable speed pump and operator call-outs have been high for the period.
- We are still getting some positive coliform results at Waterloo, despite having drained, inspected and disinfected each of the two aeration chamber/reservoir streams. A more detailed investigation is planned.

3.2.2 Health and Safety

There are one minor accident, being a sprained ankle at Gear Island.

3.2.3 Operations and Maintenance

- The lime room floor B stream side was resealed.
- The B stream reservoir wall repair was completed.
- The Colin Grove fixed speed pump controller was repaired.

3.2.4 Plant Tours

There were no tours during the period.

3.3 Te Marua

3.3.1 Quality

There are no quality issues to report.

3.3.2 Health and Safety

There are no accidents or incidents to report.

3.3.3 Operations

There are no issues to report.

3.3.4 Plant Tours

There were no tours for the period.

4. Distribution

4.1 Quality

There are no quality issues to report.

4.2 Health and Safety

There was one minor incident, being a neck strain.

4.3 Operations

- All scheduled maintenance activities were carried out as planned:
- A leak in the old cast iron pipe by the bridge on State Highway 1 at Paremata caused some minor damage to the road edge.

Utility Services Division Health and Safety Data July 2003 to June 2004 - Total Injuries

| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| PRODUCTION (+ 4 OPS ADMIN) | | | | | | | | | | | | | |
| Hours worked | 3,516 | 2,380 | 2,520 | 2,336 | 2,287 | 3,434 | 1,667 | 2,365 | 2,496 | 2,203 | 2,355 | 3,627 | Aug = Achilles tendon/foot sprain |
| Employee numbers | 18 | 18 | 18 | 18 | 15 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 Sep = cut finger pulling out nail |
| Incidents | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | Nov = Graze/minor bruising on hip after knocking steel pipe support |
| Days lost | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | Feb = Superficial injury to nose |
| Incidence rate (number of incidents per 100 workers) | 0 | 6 | 6 | 0 | 7 | 0 | 0 | 6 | 0 | 0 | 6 | 19 | May = Back sprain |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 4 | 4 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 4 | 8 | Jun = Ankle sprain/strain; Leg stain/sprain; Cut finger |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | |
| DISTRIBUTION | | | | | | | | | | | | | |
| Hours worked | 1,760 | 1,389 | 1,277 | 1,362 | 1,285 | 1,581 | 697 | 1,167 | 1,177 | 1,003 | 1,166 | 1,493 | Jan = Hit in eye with rust splatter - 1 day lost Feb = Bruised Achilles tendon |
| Employee numbers | 8 | 8 | 8 | 8 | 9 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 Apr = Sprain/strain |
| Incidents | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 May = Sprain/strain |
| Days lost | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 3 | 1 | Jun = Neck sprain/strain |
| Incidence rate (number of incidents per 100 workers) | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 13 | 0 | 13 | 13 | 13 | |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 9 | 0 | 10 | 9 | 7 | |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 35 | 26 | 7 | |
| ENGINEERING CONSULTANCY | | | | | | | | | | | | | |
| Hours worked | 2,388 | 1,764 | 1,764 | 1,739 | 1,629 | 2,396 | 968 | 1,736 | 1,816 | 1,480 | 1,728 | 2,520 | Sep = Strained knee and shoulder Nov = Cut finger |
| Employee numbers | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Incidents | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Days lost | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Incidence rate (number of incidents per 100 workers) | 0 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| UTILITY SERVICES SUPPORT | | | | | | | | | | | | | |
| Hours worked | 1,572 | 1,012 | 1,060 | 1,072 | 836 | 1,276 | 496 | 776 | 804 | 867 | 844 | 1,117 | Sep = Strained knee and shoulder Nov = Cut finger |
| Employee numbers | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| Incidents | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Days lost | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Incidence rate (number of incidents per 100 workers) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| LABORATORY | | | | | | | | | | | | | |
| Hours worked | 1,558 | 1,138 | 1,149 | 1,040 | 1,003 | 1,523 | 809 | 1,079 | 1,218 | 940 | 930 | 1,446 | Sep = Strained knee - 2 days lost Sep = Strained Back |
| Employee numbers | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 6 Sep = Bruised knee and finger |
| Incidents | 0 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 Oct = Cut finger |
| Days lost | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 Nov = Burnt hand and finger |
| Incidence rate (number of incidents per 100 workers) | 0 | 0 | 43 | 14 | 14 | 0 | 14 | 0 | 0 | 0 | 17 | 17 | 17 Jan = Bruised finger (shut in car door) |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 0 | 26 | 10 | 10 | 0 | 12 | 0 | 0 | 0 | 11 | 7 | 7 May = Cut arm on sharp edge |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 Jun = Superficial injury (chemical burn) |

STRATEGY AND ASSET

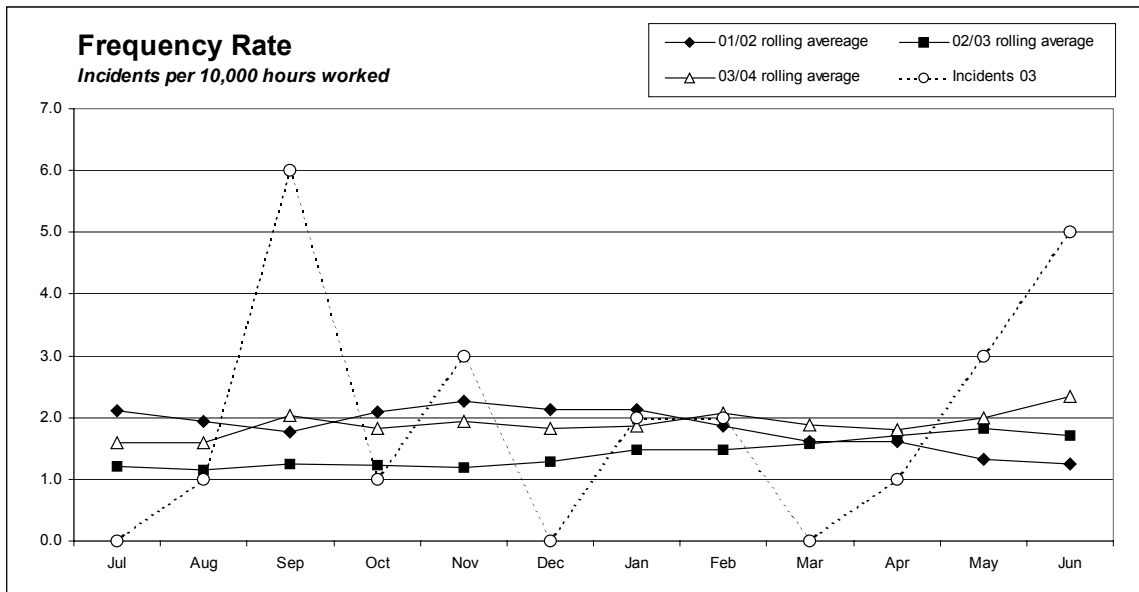
| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Hours worked | 992 | 792 | 804 | 740 | 572 | 792 | 256 | 420 | 628 | 552 | 616 | 840 |
| Employee numbers | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Incidents | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Days lost | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Incidence rate (number of incidents per 100 workers) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

FORESTRY

| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Sep = Fractured skull |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------|
| Hours worked | 944 | 637 | 649 | 509 | 408 | 647 | 270 | 473 | 482 | 363 | 468 | 644 | |
| Employee numbers | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| Incidents | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Days lost | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Incidence rate (number of incidents per 100 workers) | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

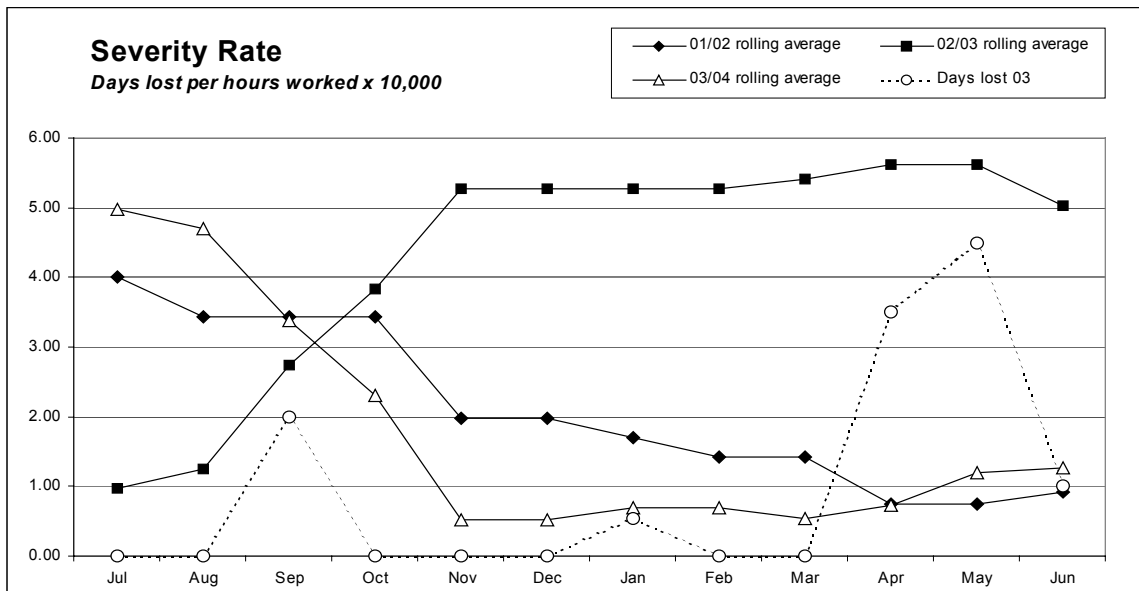
| Utility Services Division Combined | Jul | 12 Month Average | Aug | 12 Month Average | Sep | 12 Month Average | Oct | 12 Month Average | Nov | 12 Month Average | Dec | 12 Month Average | Jan | 12 Month Average | Feb | 12 Month Average | Mar | 12 Month Average | Apr | 12 Month Average | May | 12 Month Average | Jun | 12 Month Average |
|---|--------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|------------------|--------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|------------------|--------|------------------|
| Hours worked | 12,730 | 8,686 | 9,111 | 8,710 | 9,223 | 8,779 | 8,798 | 8,808 | 8,019 | 8,811 | 11,648 | 9,117 | 5,162 | 8,825 | 8,016 | 8,802 | 8,620 | 8,774 | 7,408 | 8,708 | 8,107 | 8,762 | 11,686 | 9,044 |
| Employee numbers | 61 | 58 | 61 | 59 | 61 | 59 | 61 | 59 | 58 | 59 | 58 | 59 | 58 | 59 | 58 | 59 | 57 | 59 | 57 | 59 | 57 | 59 | 57 | 59 |
| Injuries | 0 | 1 | 1 | 1 | 6 | 2 | 1 | 2 | 3 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 1 | 1 | 3 | 2 | 5 | 2 |
| Days lost | 0 | 4 | 0 | 4 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 4 | 1 | 5 | 1 | 1 | 1 |
| Frequency rate (incidents per 10,000 hours exposure) | 0 | 2 | 1 | 2 | 7 | 2 | 1 | 2 | 4 | 2 | 0 | 2 | 4 | 2 | 2 | 2 | 0 | 2 | 1 | 2 | 4 | 2 | 4 | 2 |
| Severity rate (days lost to injury per 10,000 hours worked) | 0 | 5 | 0 | 5 | 2 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 0 | 1 | 5 | 1 | 6 | 1 | 1 | 1 |

Incidence rate = (number of incidents/number of employees) x 100
 Frequency rate = (number of incidents/person hours worked) x 10,000
 Severity rate = (days lost/person hours worked) x 10,000



Incidents

Two incidents in January 2004
 Two incidents in February 2004
 One incident in April 2004
 Three incidents in May 2004
 Five incidents in June 2004



Days Lost

1 day lost in January 2004
 2 days lost in May 2004
 1 day lost in June 2004

Strategy and Asset Group

May/June 2004

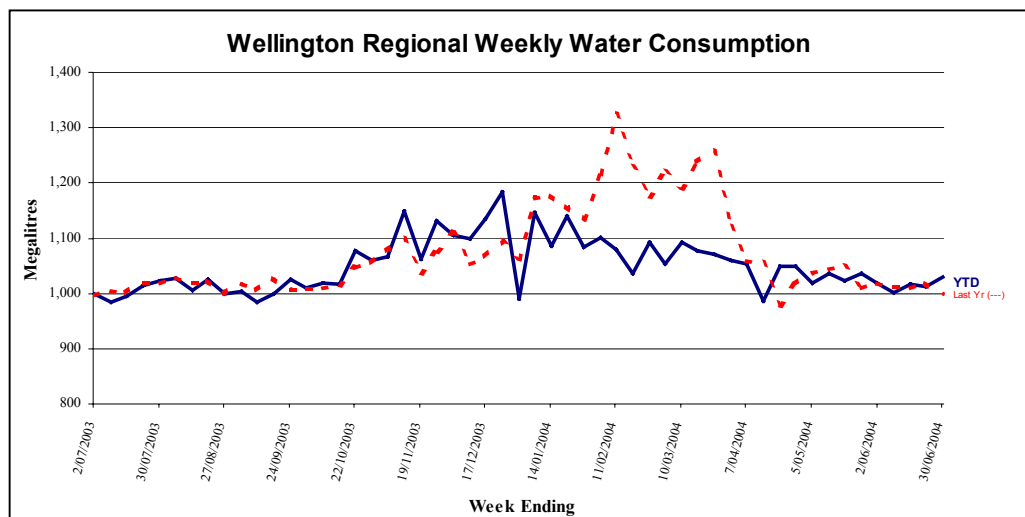
Strategy and Asset Group Review of Operations for the Period Ended 30 June 2004

1. Items of Note

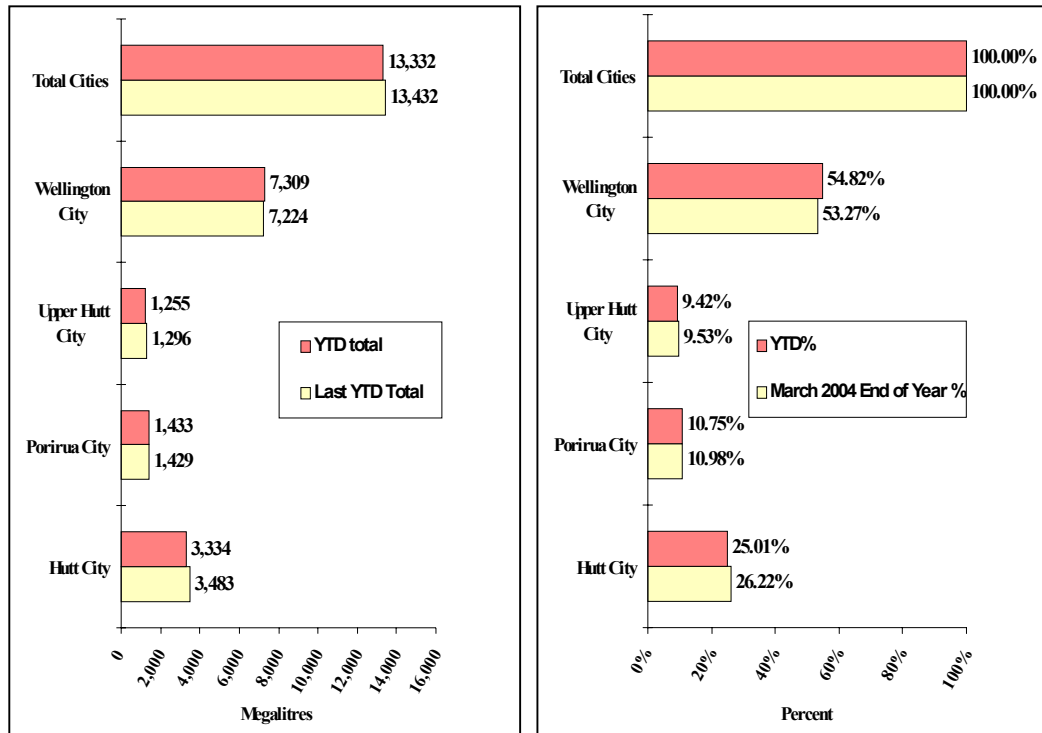
- Following the last meeting of the Utility Services Committee, the decommissioning report for the Lower Wainuiomata Lower Dam has been referred to the Landcare Division to develop a proposal for a wetland.
- The Select Committee has reported back to Parliament on the Building Bill. The Bill contains a section relating to the licensing and safety of dams. It is pleasing that many of the points raised in this Council's submission (and other organisations concerned with dam safety) have been incorporated in an amended Bill. Not only will the Bill, if adopted, be much more workable for Greater Wellington Water (GWW), it will also require much less work by the section of the Council that will be responsible for the regulatory element.
- A summer water conservation programme is being developed and will be referred to the next meeting of the Utility Services Committee.
- Water sales volumes for the period are very much in line with what would normally be expected for winter consumption.
- The Ministry of Health's consultation work on the Drinking-Water Standards is continuing and various public meetings have been arranged. Officers will be attending a meeting in Wellington in August. At almost the same time the Ministry of Environment, which has now released its discussion document on raw water guidelines, will be also holding public meetings to receive feedback.

2. Sales Volume

Water Sold Over the Last 12 Months



Water Sold from 31 March to 30 June 2004



3. Asset Management

- The Capital Works budget for 2003/4 is \$5.111 million. Actual expenditure to 30 June 2004 was \$3.818 million. Some significant projects have been delayed and \$902,000 has been carried forward into the 2004/5 financial year to finance this work. Achievements during the year include:
 - Wainuiomata Catchment northern boundary fence, stage 2 completed for \$135,000.
 - Modification to the Orongorongo intake completed, except for minor finishing work to be carried out next summer. Cost \$87,000.
 - Replacement of the electronic controller at Wainuiomata Water Treatment Plant has been completed at a cost of \$219,000.
 - Relocation of the Pukerua Bay branch onto the new Paremata Bridge has been completed, apart from minor finishing work for a total cost of \$229,000. Transit New Zealand has agreed to fund 35.5 percent of the cost of this work, less than the normal 50 percent share because GWW has elected to shift the existing main off the old bridge to reduce its vulnerability to seismic damage.
 - Replacement of the OK main between the Wainuiomata Tunnel and the water treatment plant is complete at a cost of \$1,174,000, and the access road has been resealed.
 - Replacement of the Karori Pumping Station (budget \$600,000). Following lengthy discussions with Wellington City Council (WCC)

officers and the detailed investigation of six sites, a preferred site has now been identified, and a detailed engineering design report prepared. A resource consent application will be submitted to WCC in August. \$475,000 has been rebudgeted to 2004/5.

- Construction of a new pumping station to house the Point Howard pumps (budget \$417,000). Land has been acquired, design is proceeding and the new pumps have been ordered. A sum of \$317,000 has been rebudgeted to 2004/5.
- Consultants have reported on the options for off-river storage at Wainuiomata. Such storage would enable this plant to continue operation when the rivers are dirty and during periods of very low river flows. However, the studies show that only limited opportunities to store water are available.
- NIWA consultants have been commissioned to build a computer model to predict summer water demand and provide early warning of possible shortfalls. The model will use long-range (three month) weather forecasts as input and is considered to be very innovative.
- Flood protection works to minimise the risk of damage to the Wainuiomata raw water main are being designed.
- Repairs to the Wainuiomata access bridge damaged in the February floods have been designed by a consultant engineer working for the insurance company. Repair work has begun but progress is slow. The insurance company will meet all repair costs, including the cost of the temporary "Bailey" bridge, excluding a \$2,500 excess.
- Knight Frank Ltd has presented their draft revaluation of the wholesale water assets. The replacement cost has increased by 30 percent to \$490 million and the book value has also increased by 30 percent to \$308 million.

4. **Quality Assurance**

- Development of a revised Drinking Water Standard is continuing. GWW has a staff member on the Experts Committee considering the changes. A public meeting was held on 15 April and a further submission on behalf of Greater Wellington Regional Council was sent on 30 July. Further consultation is expected before the Standard is finalised.
- Work is continuing on a new proposal by the Ministry for the Environment to establish a National Environmental Standard for drinking water sources and a draft has recently been made available. The linkage between this Standard and the new Drinking Water Standard is important but, to date, unclear. GWW staff will attend a public meeting on 12 August and make submissions on the content of this Standard.

5. Environmental

- A proposal to lower the Wainuiomata Lower Dam was presented to the last Utility Services Committee meeting. Landcare staff are currently considering this proposal, as the expectation is that the long-term management of the lowered dam would lie with the Landcare Division.

6. Catchment Management

- Remedial maintenance was carried out on the Orongorongo access road. While this work was undertaken somewhat later in the year than desirable, it was important to reopen all the water table and culverts and to ensure the water was directed off the running surface prior to the onset of winter proper. This was achieved and final shaping and resurfacing of the running surface can be undertaken over summer.
- Nine pigs were culled by a pig hunting contractor in June and a further 3 pigs, 6 deer and 5 goats as part of the Judas goat programme.
- Two catchment tours were held over this period. The first on 9 May attracted 58 walkers, a number of whom found the going too tough and were ferried to the lunch site to rest up while waiting for the balance of the party. All walked out in the afternoon. On 23 May only 20 walkers partook in the tour but from all accounts they all enjoyed the experience.
- Incidents of petty vandalism and trespass continue on a regular basis.
- The programmed fence construction has now been completed and presently 8.4 km of the boundary is fenced.
- A report was received from Tonkin and Taylor Ltd on the perceived risk from falling rocks on the access road to the Hutt River weir. The report recommended:
 - Closure of the track to the public during July, August and September
 - Closure of the track to the public during and for a day after heavy rainfall
 - Erection of warning signs
 - Maintenance of a rock fall register
 - Staff not to use the track for 24 hours following heavy rain
 - Ensure all trips are made by vehicle rather than on foot
 - Minimise the time spent outside either the car or pump house while in this area.

As there are no New Zealand guidelines for risk acceptance criteria for societal risk because of geotechnical hazards, the consultants applied the

Australian Standard. This Standard suggests an upper limit of tolerability of societal lives risk of 1 in 1,000. The assessed risk in this area is 1 in 5,000,000 and is thus several orders of magnitude safer than the Australian Standard.

7. Marketing

- Work is ongoing for the water interpretation signs for Kaitoke and Te Marua. The sign text was reviewed by GWW managers and Parks' marketing advisor. Quotes for design and fabrication were received. The new GWW signs will complement Landcare's recently installed signs at Kaitoke.
- Divisional communication plan. The first draft was completed and delivered to the Strategy and Asset Manager for review. The plan links Utility Services' Water activity with the Council's communication strategy adopted on 30 June 2003.
- Greater Wellington Web Site Content. A review of GWW content was started in preparation for the Council launching a redeveloped and upgraded web site later this year.
- Co-ordinated Water Management Plan. Work is ongoing to investigate whether there is support from our customers for the development of a co-ordinated water management plan similar to one recently adopted in Auckland. The technical report of Auckland's plan has been circulated to the water managers of our customers for their consideration. Representatives from Watercare (Auckland's bulk water supplier) have agreed to provide us with a review of their plan development process later this year.
- Water Treatment Plant Visits. There was one water treatment plant visit during the reporting period, involving some 45 visitors. For the year to 30 June GWW arranged and provided 26 plant tours involving over 800 visitors.
- Media. Three media releases were made during the period, in relation to the new bridge pipeline at Paremata, emptying Lake 2 at Te Marua for cleaning; and high population growth putting pressure on security of supply. All three releases received fairly widespread coverage.

8. Projects Undertaken by Engineering Consultancy for Strategy and Asset

- Wainuiomata/Orongorongo Catchment Fence

The Contract for erection of the second stage of a deer and stock fence along the northern boundary of the water collection area has been completed.

- Kaitoke No. 2 Tunnel Access Footbridge

The Contract to refurbish the footbridge at the Te Marua end of the No. 2 Tunnel has been completed.

- Wainuiomata Water Treatment Plant Outlet Control Valve

The proposal for the replacement and relocation of this control valve is being reviewed. Pressure surges in the pipeline are being analysed.

- Waterloo Well Pump Control Valves

Arrangements have been made to replace the first of the Waterloo well pump control valves. Initial flow and pressure tests have been carried out.

- Refurbishment of the OK Main, Petone

Negotiations are continuing with the Contractor to finalise the cost of the work.

- State Highway 1 Bridge at Paremata

The new pipeline on the new Paremata Bridge has been commissioned. Final costs are being determined.

- Rerouting Te Marua to Karori Pipeline at Mangaroa

Transit New Zealand is proposing to straighten State Highway 2 south of Mangaroa Bridge. This realignment will require deviation of approximately 160 m of the Te Marua to Karori pipeline. A drawing of this deviation and a Specification has been prepared and provided to Transit New Zealand's Consultant, Opus International Consultants Ltd.

- Rerouting Te Marua to Karori Pipeline at Haywards

The existing pipeline route from State Highway 2 to the Haywards Pumping Station is susceptible to earthquake induced landslide damage. Alternative routes for this pipeline are being assessed. Pipe supply for this project is being investigated.

- Orongorongo Pipeline Replacement

The new pipeline from the tunnel to the Wainuiomata Water Treatment Plant has been commissioned and all minor items attended to.

- Karori Pumping Station

A replacement pumping station located on Northland Tunnel Road is proposed. Quotations have been received for the supply of the

pumpsets. The installation of vertically mounted pumpsets is proposed. This allows a significant reduction in the building plan area. The building design consultant is reviewing the proposed appearance of the building.

- Point Howard Pumping Station

The underground pumping station at Hutt Park is being replaced. Land purchase arrangements are being finalised for the proposed site alongside Seaview Road. The pumpsets have been ordered. Internal and external pipework is being detailed. The structural design of the building is proceeding.

- Pinehaven Pumping Station

The new pumpsets and switchboard have been installed. An electrical problem has been found with one of the pumpsets. It has been returned to the supplier for repair.

- Minor Seismic Projects

A number of minor seismic protection projects are being attended to. These include:

- Installing a non-return function on the Gracefield Reservoir inlet control valve is proceeding.
- Installation of a new line valve on the 525 mm pipeline at Moores Valley Pumping Station is being investigated.

- Wainuiomata River Intake Pipeline

The flood on 16 February 2004 caused 27 m of this pipeline to collapse into the river. The pipeline has been reinstated. Permanent riverbank protection works have been designed. Affected parties are being consulted prior to applying for a resource consent.

Engineering Consultancy Group

May/June 2004

Engineering Consultancy Group Review of Operations for the Period Ended 30 June 2004

1. Work Carried Out for the Strategy and Asset Group

The main capital projects for which the Engineering Consultancy Group has responsibility are itemised in the Strategy and Asset Group report. Support is also provided for other projects being undertaken by this group.

2. Work Carried Out for the Operations Group

The Engineering Consultancy Group has continued to provide support for smaller projects arising from the operation and maintenance of the wholesale water supply system.

3. Work Carried Out for Wellington City Council

3.1 General

The work carried out for WCC is significantly less than in previous years. Current projects under way are detailed in the following sections.

3.2 Rugby, Sussex and Cable Streets

WCC has approved the design report. Because these are busy streets and partly State Highway, some construction work will need to be carried out at night. Draft drawings have been submitted to WCC and comments are awaited.

3.3 Aramoana Reservoir, Miramar

There is a storage deficit of 10 ML in the Low Level Zone of Wellington City. Of this storage, approximately 6.5 ML is required in the Eastern Suburbs (Miramar) and 3.5 ML in the Southern Suburbs (Island Bay).

The floor has been completed, along with a large proportion of the wall sections, associated columns and roof section.

3.4 Mt Albert Reservoir

This 3.5 ML reservoir will be sited in Mount Albert Park within Berhampore Golf Course. The design report has been approved and design work is under way. Pipework and electrical drawings have been prepared.

3.5 Onslow Reservoir

The new 4.5 ML capacity rectangular reservoir is complete and in service. Backfilling and associated topsoiling is nearing completion.

3.6 Warwick Street Pumping Station

This pumping station includes pumpsets for both WCC and GWW, supplied by a common electrical and controls panel. The Engineering Consultancy Group has been commissioned by WCC to arrange for the replacement of the two WCC pumps that deliver to Wadestown Reservoir and the installation of a combined electrical control panel.

The first new pumpset is in operation and preparations made for the removal and replacement of the second pumpset.

4. Miscellaneous Projects

4.1 Hutt River at Belmont

John Morrison is the Engineer to the Contract for this project. Construction work is complete, including landscaping and final tidying up.

4.2 Kapiti Water Supply- Lindale Underpass

The Engineering Consultancy Group has been engaged to design an alternative deviation of the water main. The diversion would be down to the lower ground level and not on the bridge as originally proposed by the Consultants. The project has some urgency to fit the Contractor's programme. The design drawings and specification have been completed and forwarded to the project consultant.

4.3 Outsourcing Arrangement with the Flood Protection Department

An outsourcing arrangement is in effect, whereby the Engineering Consultancy Group carries out draughting services for the Flood Protection Department.

Laboratory Services

May/June 2004

Laboratory Services Department Review of Operations for the Period Ended 30 June 2004

1. Items of Note

- The Laboratory recorded a financial loss of \$88,400 for the 2003/4 year, down \$90,000 from the surplus of \$26,000 as originally budgeted. Unfortunately, and as reported throughout, the single uppermost cause of the problem was missing out on the revenue from Environment Division and not simply being able to recoup this loss. If any consolation, the deficit was less than that estimated in the initial impact report and more in keeping with subsequent ongoing reviews and forecasts.
- Our annual IANZ Surveillance Assessment was carried in May this year and, although minor areas were identified for improvement, the overview reported was *a very good standard of compliance* with regard to the ISO 17025 laboratory standard requirements and that *staff are commended on their achievement'*, as well as other glowing observations being made by the assessor.
- The visit also served as an Extension Assessment to include several new tests within both the chemical and microbiological scopes of our accreditation. The new tests were all functional, for example, new micro tests were pursued in anticipation of opportunities with swimming pool testing this coming summer.
- After much deliberation, but ultimately out of sheer necessity, we decided that we could not live without an autoclave, so a new one was finally ordered in June and we await delivery.

As espoused in our compelling “proposal to purchase”, this fine piece of Israeli equipment will replace the faithful laboratory steriliser of almost 20 year vintage, the one remaining feature of which is that it just will not die.

- Following the resignation of one of our senior technicians earlier in March we advertised for a replacement, as reported earlier. However, after much soul searching and by juggling various duties amongst the existing staff we concluded that we might be able to manage without filling the vacancy. We have now expanded the terms and duties of our part timer to those of a casual field officer to fill the gap and this appears to be working well. The net result is effectively a reduction in permanent laboratory staff numbers from seven to six plus one casual employee.

2. Business Summary

2.1 Quality

There were no complaints regarding the quality of our work, or any requests for retesting. Test reports were generally timely.

2.2 Health and Safety

There was one minor incident during the period, with no time off work incurred.

Plantation Forestry

May/June 2004

Plantation Forestry Department Review of Operations for the Period Ended 30 June 2004

1. Log Harvest Contract

The easing of the New Zealand dollar and of freight rates reported in April did not continue through May and June. The dollar has remained in the mid-60s and, after stabilising for a short period, the shipping rates began to climb again. During this period, following the effective closure of the Korean market, all exporters switched to China and within a relatively short period of time that market was also flooded.

To add to the problems Centreport decided to reseal a significant portion of the log holding area at Wellington and this, together with the additional product as a consequence of the February storms, meant that logs were stored on a temporary basis on the reclaim area at Kaiwharawhara. The cost of the additional transshipment between Kaiwharawhara and ship's side was borne by the forest owner. In our case we were fortunate, as through good luck and good management, together with a ship at the right time, Rayonier was able to maintain their stocks within their space allocation in the port proper.

Domestically the post-storm glut has meant that prices have either held or eased slightly. This is a better result that I would have expected, given the extent of storm damage. With the onset of winter proper, a lot of windthrow recovery operations have had to be abandoned and we are fortunate to be to continue logging through the winter. We currently have three crews working through the mature windthrow and, provided we do not encounter too much sap stain, they will continue into spring.

The recovery of windthrow at the Glider Club was completed in June and that crew has now commenced operations at Martins in Tunnel Gully.

Production for the May and June periods are shown below. Output by grade at Reservoir Ridge/Clarkes Creek was:

| Grade | May | | June | |
|-----------------|--------|-------|---------|-------|
| | Tonnes | % | Tonnes | % |
| Pruned Domestic | 555.46 | 12.98 | 515.69 | 12.41 |
| Pruned Export | 0 | 0 | 0 | 0 |
| Run of Bush | 348.14 | 8.14 | | |
| S/A Grade | 839.72 | 19.62 | 1015.99 | 24.44 |
| L Grade | 120.46 | 2.82 | 246.49 | 5.93 |
| R Grade | 526.78 | 12.31 | 184.45 | 4.44 |
| K Sawlog | 703.44 | 16.45 | 783.14 | 18.84 |
| Roundwood | 0 | 0 | 0 | 0 |
| K Rough | 514.28 | 12.02 | 708.72 | 17.05 |

| Grade | May | | June | |
|------------|---------|-------|---------|-------|
| | Tonnes | % | Tonnes | % |
| Pulp | 590.02 | 13.79 | 644.52 | 15.51 |
| Xport Pulp | 0 | 0 | 42.92 | 0.37 |
| O/S Pulp | 80.46 | 1.88 | 42.92 | 1.03 |
| Total | 4279.09 | | 4156.26 | |

For May, revenue was \$101,786.75 at an average of \$26.12 per tonne.
For June, revenue was \$75,225.91 at an average of \$18.10 per tonne.

The recovery of windthrow at the Glider Club stand produced:

| Grade | Tonnes | % | Tonnes | % |
|------------|--------|-------|--------|-------|
| S/A Grade | 323.36 | 42.52 | 87.86 | 23.58 |
| L Grade | 0 | 0 | 0 | 0 |
| R Grade | 77.71 | 10.22 | 0 | 0 |
| K Sawlog | 190.07 | 25.00 | 160.68 | 43.11 |
| K Rough | 69.44 | 9.13 | 40.42 | 10.85 |
| Pulp | 70.28 | 9.24 | 0 | 0 |
| Xport Pulp | 29.57 | 3.89 | 57.02 | 15.3 |
| O/S Pulp | | | 26.7 | 7.16 |
| Total | 760.43 | | 372.68 | |

For May, revenue totalled \$19,630.42 at an average of \$25.81 per tonne.
For June, revenue totalled \$4,368.74 at an average of \$11.72 per tonne.

Tunnel Gully

| Grade | June | |
|-----------------|--------|-------|
| | Tonnes | % |
| Pruned Domestic | 131.70 | 30.76 |
| L Grade | 40.92 | 9.56 |
| R Grade | 12.66 | 2.96 |
| K Sawlog | 114.04 | 26.63 |
| K Rough | 58.04 | 13.56 |
| Pulp | 70.8 | 16.54 |
| O/S Pulp | 0 | 0 |
| Total | 428.16 | |

Revenue totalled \$8,410 at an average of \$19.64

Overall harvesting for the two months returned \$209,440 at an average of \$20.95 per tonne.

2. Silviculture Contracts

Tenders were invited for the 2004/5 silviculture programme. Tenderers were invited to tend a total of 257.5 hectares as 15 discrete tasks. Although five sets of documents were issued, only two Tenders were received, with a further being rejected, as it was received two and a half days after Tenders closed. The Tenders received were from the incumbent operators and the work has been split 11 tasks to Forest Developers and Management Ltd and 5 to Green Gold Forestry Contractors.

3. Plantation Forestry Operations

Most work has involved servicing the three logging crews. An additional three skids and about 500 m of road have been constructed in Valley View and resource consents have been sought for culverts at Tunnel Gully as the felling moves further from the road.

There have been a number instances of petty vandalism to gates and fences, which have required remedial action.

Planting commenced in the third week of June and will continue for as long as the weather remains suitable and planting stock can be obtained.

A review of the harvest plan and the blocks nominated for inclusion in the next harvesting contract has commenced following the need to abandon the earlier plans in order to address those areas that suffered significant windthrow in the February storms.

4. Forest Access

We are still getting minor slips and washouts as a consequence of the sodden ground. Generally, four wheel drive vehicles can negotiate these obstructions, so they can be removed when other activities permit.

In June we were advised of a slip above Karapoti Road which originated from what appeared to be our land. It transpired that the slip had closed the road on about seven occasions and had been cleared by Upper Hutt City Council. Over the next fortnight it came down on a further three occasions. After discussions with Upper Hutt City Council and their advisers we arranged to have the trees above the slip felled to reduce the likelihood of the trees moving in the wind and further weakening the remaining land. Sitting at the head of the slip is an area of land including about 13 standing trees which has broken away and slipped about 2 m down the hill. Ideally it would have been better to remove these trees also but all parties agreed that there was a risk that the impact of a falling tree could be enough for the land to take off and that risk was too high to allow staff to work in that area. It is likely that in time this slab of soil (estimated at up to 5,000 tonnes) will come down and until then there is little that can be done to stabilise the land.

Aerial photographs suggest that the origin of the slip is not in Council land but that in the past we have overplanted the boundary as the planted area above the slip was clearly planted as part of our adjoining forest. For this reason we undertook to remove the trees at our cost but with the approval of the likely landowner.

We repaired some minor slumping on the access road into the Blow Fly block in Puketiro, as this will be our first priority come spring should prices recover. It was disappointing to find that after two years and thousands of tonnes of logs there are four areas of the road into Harris South that are starting to slump. These will have to be repaired before the balance of this block can be harvested.

Other main roads used by the logging trucks have been graded and a layer of fines has been applied. These roads are standing up well to the traffic over them and no problems are anticipated. During the weekend before this work was done a rally sprint was held between the stockyards and 2.5 km mark. From all accounts the event was a success and a longer event is planned for Puketiro later in the year.

5. Market Trends

The markets are still very fickle, particularly the domestic markets. It appears that as the supply of domestic sawlog shrinks, either through the completion of windthrow logging or because winter logging is not possible, some of the mills are trying to gain a march on their competitors. This has resulted in a number of unusual offers for packages of logs, which on the surface may appear attractive but on deeper examination fail to deliver.

While we are able to sell all our production, we are getting ad hoc mill closures for 2 or 3 days at a time and almost guaranteed closures at month end, all of which suggests that supply and demand must be pretty well balanced.

The whole export scene is depressed, with both Korea and China holding ample inventory. Korea has been effectively closed for three months now and in the normal course of events would be expected to start buying again. However, the same high shipping costs that bedevil us have affected their ability to import steel from China, so their manufacturing market is still in a holding pattern.

The pruned market, which had showed signs of recovery in my last report, has stalled again - still \$50 short of what I would call a reasonable price.

Renalls' sawlog operation has been purchased from the receiver by Kiwi Lumber of Feilding and Dannevirke. They intend to expand the range of logs the mill can handle and significantly up throughput. Unfortunately their first move was to reduce the price they pay by \$2 per tonne.