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# Greater Wellington Water

July 2004

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# **Operations Group**

**July 2004**

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# Operations Group Review of Operations for the Period Ended 31 July 2004

## 1. Items of Note

- The removal of sediment from Lake 2 is complete.
- Advertisements have been posted for two positions, a Treatment Technician – Electrical and a Pipelines Foreperson
- As usual, July saw everyone absorbed with the performance review interviews.
- The debate over the proposed *Drinking-Water Standards for New Zealand* changes reached a new level following a meeting between Watercare and Greater Wellington Water.
- Discussions were held with Capacity regarding integration of the Region's telemetry and SCADA systems.

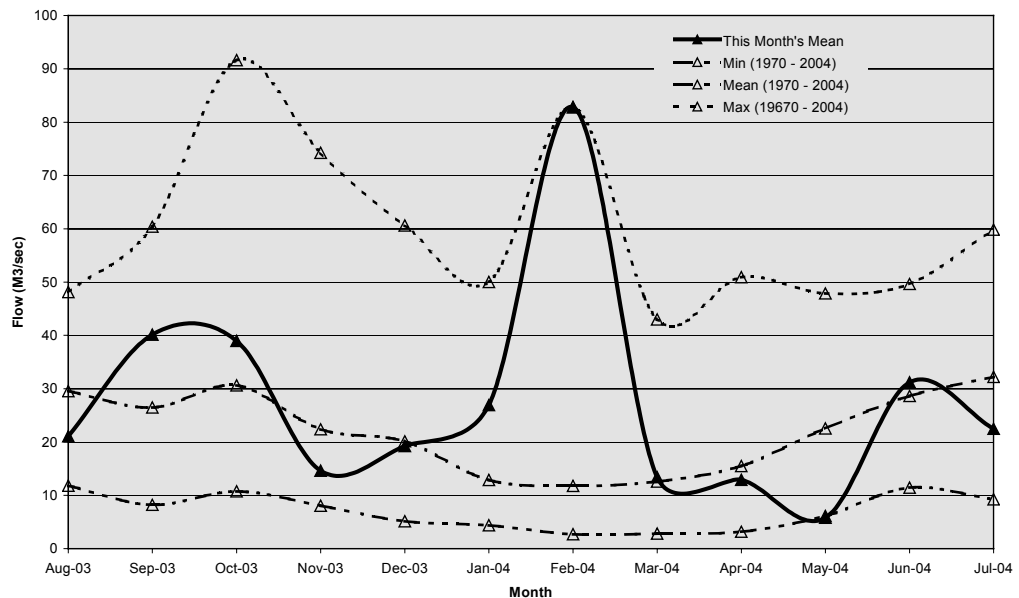
## 2. Supply Situation

Stuart Macaskill Lake 1 is full.

There have been no issues with supply for the period.

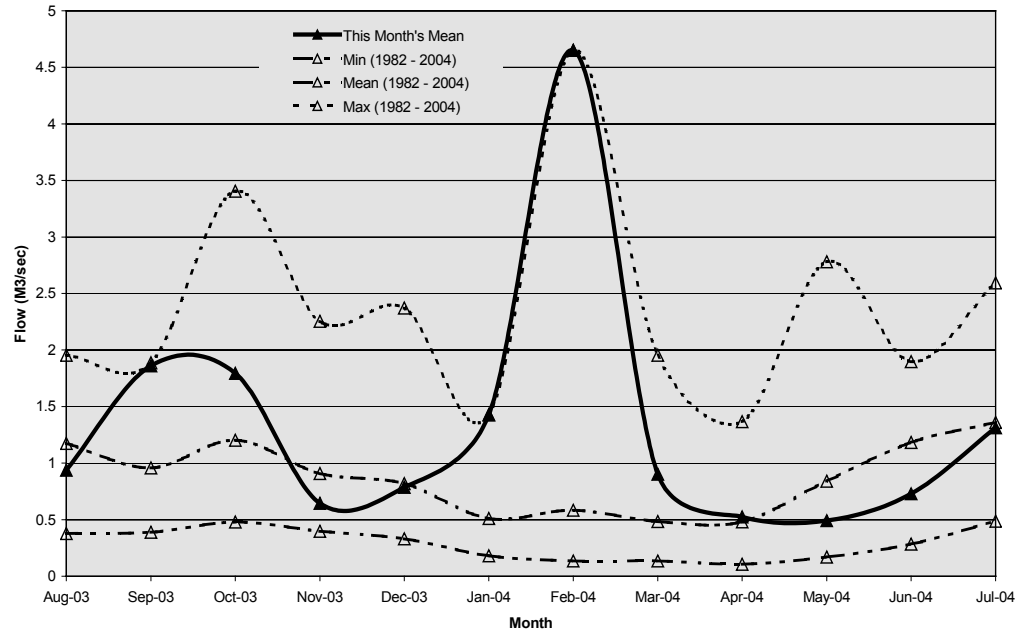
### Hutt River Flows

The mean monthly flow in the Hutt River for July was below average.



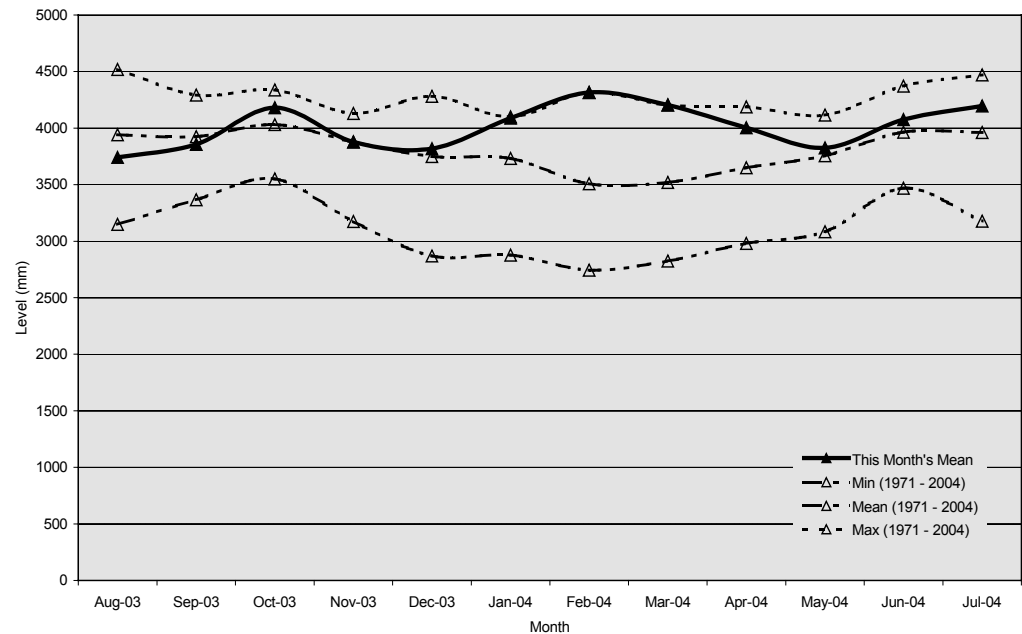
### Wainuiomata River Flows

The mean monthly flow in the Wainuiomata River for July was average.



### Aquifer Levels

The water level in the Waiwhetu aquifer was above average in July.



## 3. Treatment Plants

### 3.1 Wainuiomata

#### 3.1.1 Quality

There are no quality issues to report.

### 3.1.2 Health and Safety

There were no injuries or incidents for the period

### 3.1.3 Operations and Maintenance

- Some problems were experienced with the post-lime dosing system but these have been resolved and the system is being closely monitored.
- Investigations are under way to discover the cause of excessive wear in the centrifuge. It is suspected that small amounts of sand, carried over from the filters during a wash cycle, are a contributing factor.

## 3.2 Waterloo and Gear Island Water Treatment Plants

### 3.2.1 Quality

- pH control problems are back under control now that the variable speed pumps are back in service.
- We are still getting some positive coliform results at Waterloo, despite having drained inspected and disinfected each of the two aeration chamber/reservoir streams. The laboratory is assisting to identify the source with a broadened sampling regime.
- There were two fluoride transgressions for the period, one because of maintenance on the mixing tank and one caused by a batching problem.

### 3.2.2 Health and Safety

There were no accidents or incidents for the period.

### 3.2.3 Operations and Maintenance

- On the station platform vandals broke off a tap that was supplied by the treatment plant. This supply has now been disconnected.
- Fluoride mixing tank cleaned out.

## 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 and Maintenance

There are no issues to report

**4. Distribution**

4.1 Quality

There are no quality issues to report.

4.2 Health and Safety

There are no accidents or incidents to report.

4.3 Operations and Maintenance

- 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 has now been repaired.

## Utility Services Division Health and Safety Data - July 2004 - Total Injuries

<b>PRODUCTION (+ 4 OPS ADMIN)</b>	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Hours worked	2,517												
Employee numbers	15												
Incidents	0												
Days lost	0												
Incidence rate (number of incidents per 100 workers)	0												
Frequency rate (incidents per 10,000 hours exposure)	0												
Severity rate (days lost to injury per 10,000 hours worked)	0												
<b>DISTRIBUTION</b>	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Hours worked	1,195												
Employee numbers	8												
Incidents	0												
Days lost	0												
Incidence rate (number of incidents per 100 workers)	0												
Frequency rate (incidents per 10,000 hours exposure)	0												
Severity rate (days lost to injury per 10,000 hours worked)	0												
<b>ENGINEERING CONSULTANCY</b>	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul = Sprain/strain trunk
Hours worked	1,709												
Employee numbers	12												
Incidents	1												
Days lost	0												
Incidence rate (number of incidents per 100 workers)	8												
Frequency rate (incidents per 10,000 hours exposure)	6												
Severity rate (days lost to injury per 10,000 hours worked)	0												
<b>UTILITY SERVICES SUPPORT</b>	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Hours worked	755												
Employee numbers	7												
Incidents	0												
Days lost	0												
Incidence rate (number of incidents per 100 workers)	0												
Frequency rate (incidents per 10,000 hours exposure)	0												
Severity rate (days lost to injury per 10,000 hours worked)	0												
<b>LABORATORY</b>	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Hours worked	1,061												
Employee numbers	7												
Incidents	0												
Days lost	0												
Incidence rate (number of incidents per 100 workers)	0												
Frequency rate (incidents per 10,000 hours exposure)	0												
Severity rate (days lost to injury per 10,000 hours worked)	0												

**STRATEGY AND ASSET**

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Hours worked	560											
Employee numbers	5											
Incidents	0											
Days lost	0											
Incidence rate (number of incidents per 100 workers)	0											
Frequency rate (incidents per 10,000 hours exposure)	0											
Severity rate (days lost to injury per 10,000 hours worked)	0											

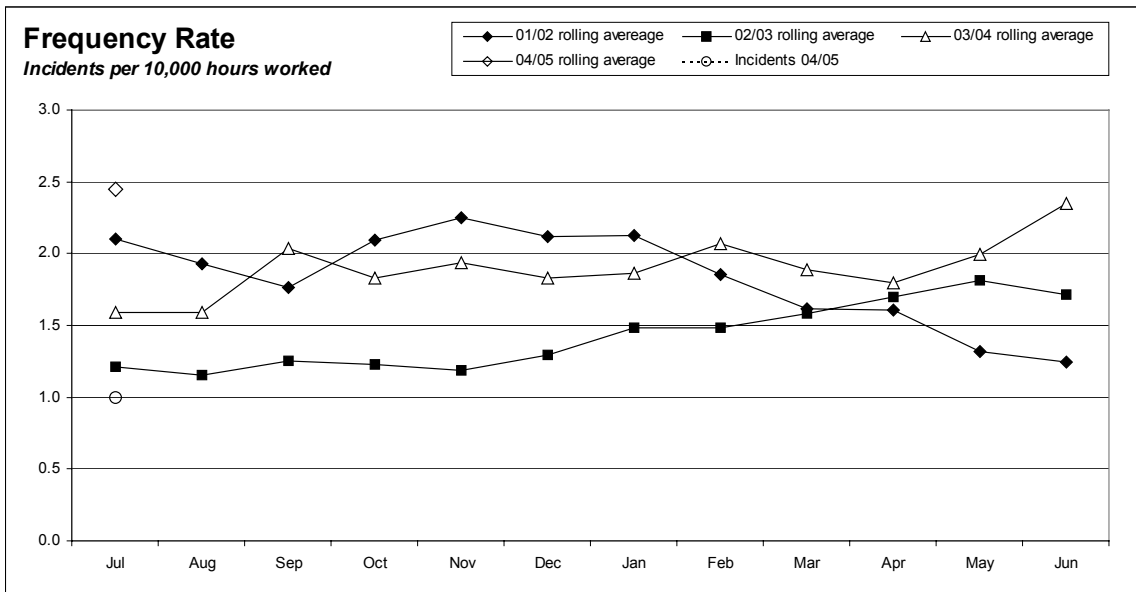
**FORESTRY**

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Hours worked	423											
Employee numbers	3											
Incidents	0											
Days lost	0											
Incidence rate (number of incidents per 100 workers)	0											
Frequency rate (incidents per 10,000 hours exposure)	0											
Severity rate (days lost to injury per 10,000 hours worked)	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	8,219	8,668																						
Employee numbers	57	59																						
Injuries	1	2																						
Days lost	0	1																						
Frequency rate (incidents per 10,000 hours exposure)	1	2																						
Severity rate (days lost to injury per 10,000 hours worked)	0	1																						

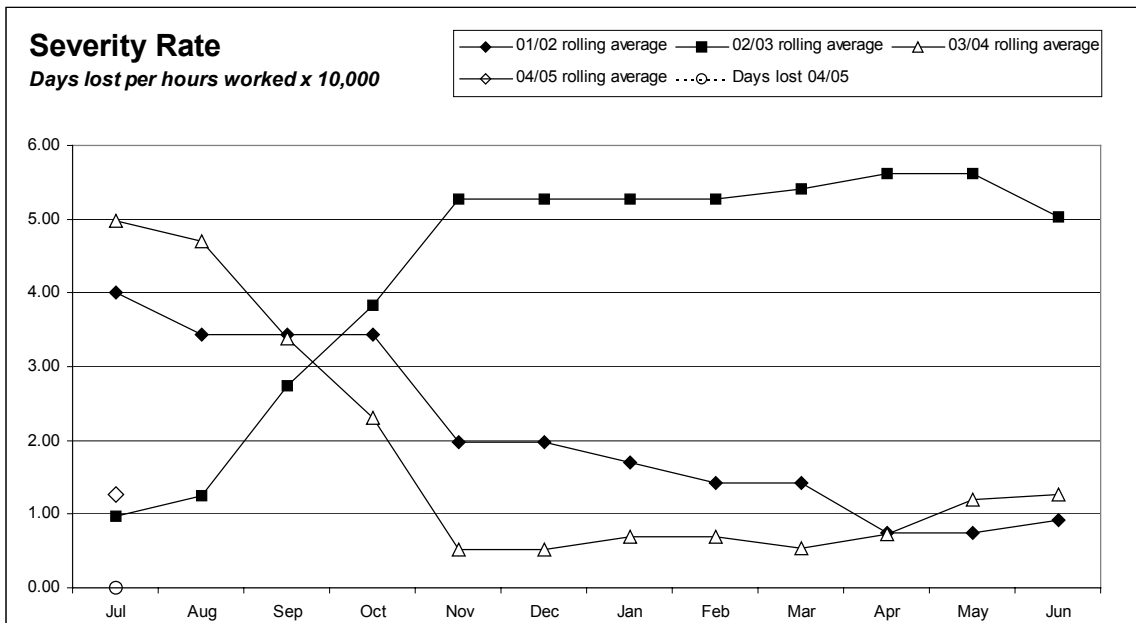
Incidence rate = (number of incidents/number of employees) x 100  
 Frequency rate = (number of incidents/person hours worked) x 10,000  
 Severity rate = (days lost/person hours worked) x 10,000





### Incidents

One incident in July 2004



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# **Strategy and Asset Group**

July 2004

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## Strategy and Asset Group Review of Operations for the Period Ended 31 July 2004

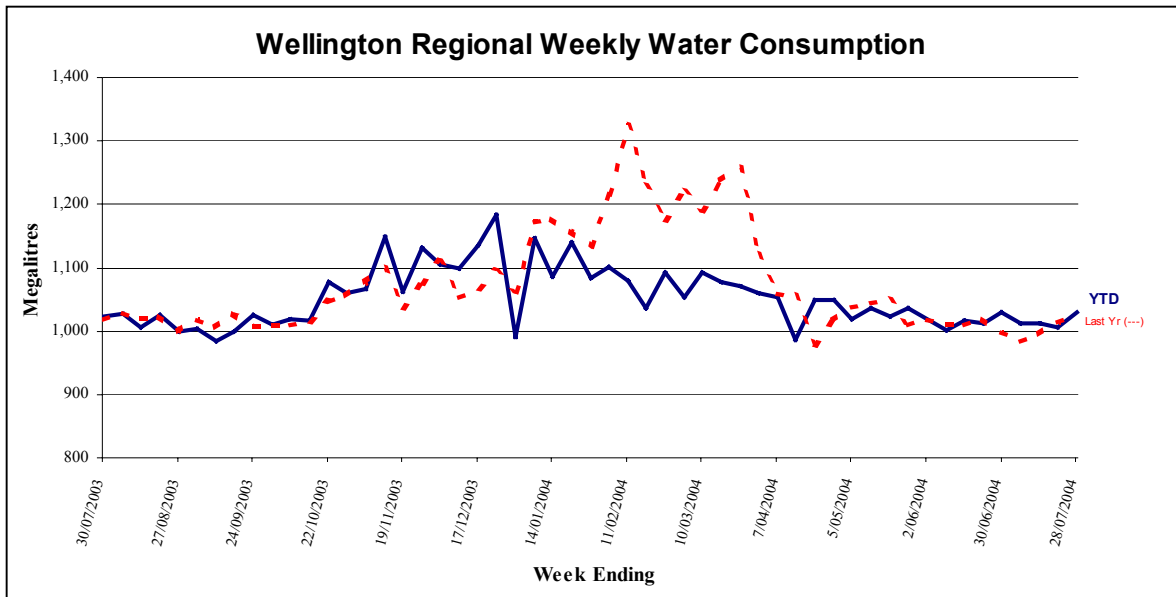
### 1. Items of Note

- By the time the Utility Services Committee meets, the Landcare Committee will have considered the proposal for decommissioning the Lower Wainuiomata Dam. The separate report to the Utility Services Committee finalises the issue before it goes to the Council's Policy and Finance Committee meeting.
- A submission has been made to the Parliamentary Select Committee that is considering the Bill that will allow for renewable energy generation in the Council's existing and future water catchments.
- A submission is being finalised to the Ministry for the Environment following the initial meeting with various interest groups on grading raw water sources that are utilised for water supply. It is expected that once the Ministry has received all the initial comments it will then publish a draft National Environmental Standard for public comment.
- The water infrastructure asset revaluation was finalised towards the end of the period and the written down value is \$285.1 million, which is less than the preliminary figure indicated in the previous Committee Report.
- A separate Committee report outlines the proposed summer water conservation campaign for the 2004/5 summer and incorporates elements of the *Be the Difference* campaign.
- A pipeline contract that was completed two years ago has been subject to dispute regarding some additional works and some complexities that the Contractor experienced in carrying out the work which the Contractor had not foreseen. Agreement has now been reached with the Contractor without the need for arbitration.

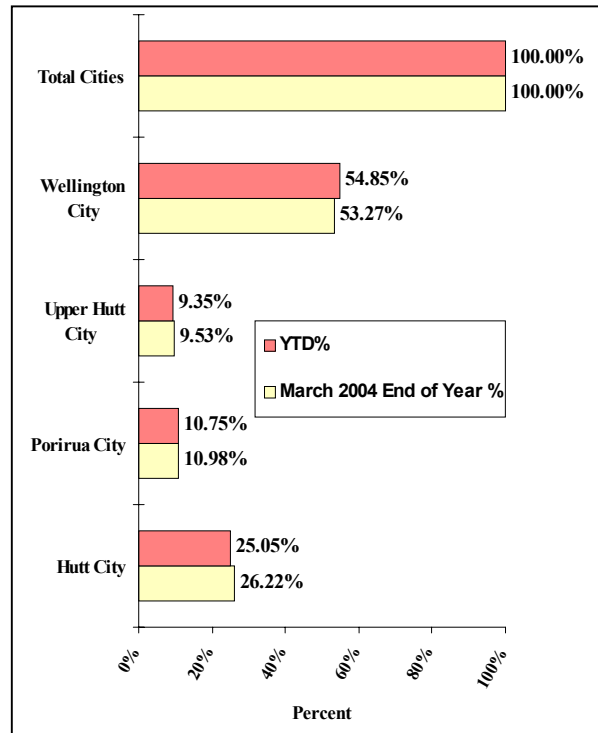
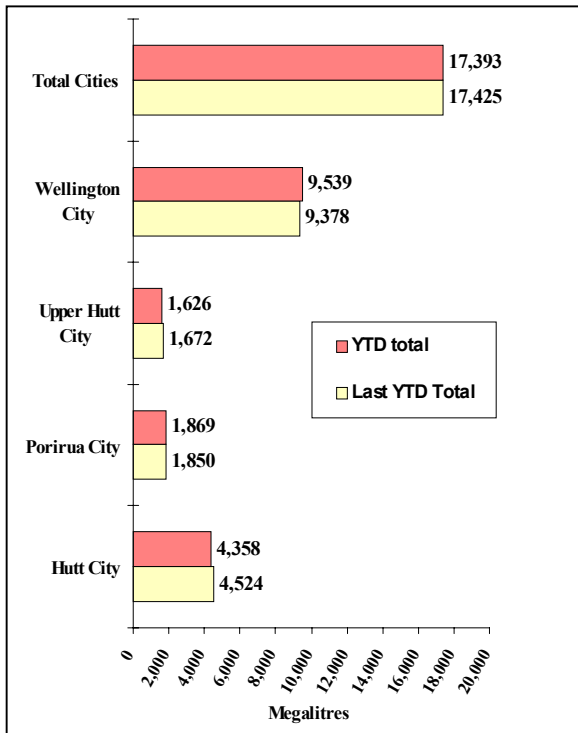
### 2. Sales Volume

Graphs detailing the sales volume information are on page 12.

### Water Sold Over the Last 12 Months



### Water Sold from 31 March to 30 July 2004



Each year the consumption over the late autumn and winter period has been reviewed to obtain an indication of baseline consumption trends. A number of factors influence consumption over the period, so it is not possible to draw explicit conclusions.

The table below provides a comparison over the last four years. All the readings are for a period of 18 weeks, ending with the last weekly reading in August.

City Council	18 Week Consumption ML						
	Year					ML Change Over 4 Years	% Change Over 4 Years
	2000	2001	2002	2003	2004		
Hutt	4,584	4,686	4,796	4,769	4,590	6	0.1
Porirua	1,835	1,874	1,958	1,936	1,958	123	6.7
Upper Hutt	1,773	2,002	1,805	1,718	1,704	-69	-3.9
Wellington	9,603	9,623	9,870	9,869	10,107	504	5.2
Total	17,795	18,185	18,429	18,292	18,359	564	3.2

Last year it was reported that the change in water consumption for the 18 week winter period over the previous three years had been 2.8 percent, or just under 1 percent on an annual basis. This year the change over four years is 3.2 percent, which on an annual basis is slightly less than the change recorded in the first three of the four years.

Earlier this year a report was provided to the Utility Services Committee indicating that a new water source would need to be developed when the population in the four metropolitan cities in the Wellington area reached 377,000 if there was not to be a breach of the 1 in 50 year drought standard for supplying water. The latest consumption figures tend to suggest that the usage per person per day may be declining slightly and this has implications as to when a new water source is required.

Previously we have been updating the information in the sustainable yield model every five years but this will now be brought back to three years and the model updated with the latest demand information and the Statistics New Zealand population figures when they are published about the end of the year. We should be then in a better position to assess when a new source would need to be developed, which had previously been assumed to be about the year 2020.

### 3. Asset Management

- The Capital Works budget for 2004/5 is \$5.312 million. The more significant projects included in the Capital Works Programme are:

- Construction of the Wainuiomata Catchment western boundary fence. Budget \$100,000.
- Design of seismic strengthening of the Stuart Macaskill Lakes intake towers. Budget \$30,000.
- Rehabilitation of the Wainuiomata Lower Dam and creation of a wetland. Budget \$300,000.
- Purchase of a spare pump for the Waterloo wellfield (two pumps failed in 2003-2004). Budget \$60,000.
- Further investigation of off-river storage at Wainuiomata. Budget \$100,000.
- Modifications to Te Marua Water Treatment Plant to facilitate independent treatment of lake and river water. Budget \$200,000.
- Installation of aeration equipment at Waterloo Water Treatment Plant to reduce lime use. Budget \$100,000
- Relocation of the Kaitoke main on the Silverstream Bridge, including a contribution of \$60,000 to bridge strengthening. Budget \$150,000.
- A start on the relocation of the Kaitoke main between State Highways 2 and 58 at Haywards to avoid a gully susceptible to seismically induced instability. Budget \$800,000
- A start on a new pumping station at Karori at a location away from the Wellington Fault. Budget \$870,000.
- Completion of a new pumping station at Point Howard at a more secure location. Budget \$367,000.
- Replacement of obsolete electronic control equipment at Te Marua Pumping Station. Budget \$145,000.
- Renewal/upgrade of the telemetry system. Budget \$160,000.
- NIWA consultants have begun work on a computer model to predict summer water demand and provide a probability based 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. A section of this main was washed out in the February floods.
- Repairs to the Wainuiomata access bridge damaged in the February floods are being undertaken by the insurer but progress is slow. The temporary “Bailey” bridge is providing an adequate service and is being paid for by the insurer.

- Knight Frank Ltd has presented their final revaluation of the wholesale water infrastructure assets. The replacement cost has increased by 17 percent to \$442 million and the book value has increased by 16 percent to \$285 million. (*Note: The preliminary figures reported to the last meeting were incorrect*)

#### 4. **Quality Assurance**

- Development of a revised Drinking-Water Standard is continuing. Greater Wellington Water 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 attended a public meeting on 12 August and will make a submission on the need for and the content of this standard.

#### 5. **Environmental**

- A proposal to lower the Wainuiomata Lower Dam was presented to the last Utility Services Committee meeting. It is understood that the Landcare Committee will consider a report on this proposal at its meeting on 2 September, as the expectation is that the long-term management of the lowered dam would lie with the Landcare Division.
- A report certifying full compliance with all consents, with the exception of a minor technical breach at Kaitoke, has been received from the Environment Division. The minor breach was associated with scouring of the intake, when the river flows through the weir rather than over it, and the flow does not register on the flow recorder. Information obtained from the NIWA flow recorder upstream was used to demonstrate to the Environment Division that there was in fact plenty of water in the river during the apparent breach. This information is not available in real time, so is not used in routine monitoring and reporting.

#### 6. **Catchment Management**

- Advertisements have been placed inviting participants for the 2004/5 guided catchment tours.
- Ten professional hunting days produced a tally of 16 pigs and 1 deer from the Wainuiomata/Orongorongo Catchment.

- Rainfall for the month was 209 mm at Wainuiomata and 199 at Orongorongo. The earlier maintenance on the road proved timely and no damage was sustained.
- Landcare staff have arranged to have a contractor treat buddliea within the Wainuiomata Catchment.
- Those same Landcare staff have also provided an assessment of the cost of operating the annual balloted hunt. All up, the cost was assessed at \$10,144 against an income of \$1,300. Of the cost, \$6,831 was paid outside Council. We will now consider whether it would be possible to recover the external costs through “user charges”. This would increase the registration fee from \$6.50 per hunter per day to \$34.20 per hunter per day.

## 7. Marketing

- Quotations were accepted for design and production for the water interpretation signs for Kaitoke and Te Marua. Text and images were supplied to the designers. The first design proof is due in August. The project is scheduled for completion by the end of September.
- A review of Water content on the Greater Wellington Regional Council web site was completed.
- Garden design for water conservation. Worked with Environment Division to produce an article for the spring issue of *Elements*. The article encourages planting native plant species and gives advice on how to care and water them in a water wise manner.
- Preparation started for the 2003/4 Water Supply Annual Report, including investigation of design consultants and collection of data and background information for writing content. This was done alongside preparing a sustainability-focused section for the Utility Services’ internal report for 30 June 2004. Data relating to Water Supply’s contribution to the Council’s carbon footprint for the 2003/4 year was collected and supplied to Environment Division.
- There were four visits arranged to the treatment plants in July, involving around 80 people. Two of the visits took place during July, with the other two to take place during August.
- Instruction signs were installed on the wheel wash facility at the entrance to Wainuiomata Water Collection Area.
- There were no media releases made during July. However, a release made in June about high population growth putting pressure on security of supply received coverage in a further five community newspapers. Transit New Zealand’s Plimmerton to Paremata Upgrade Newsletter



covered the June release about switching the main water pipeline to Pukerua Bay to their new bridge. Two community newspapers covered the Ministry of Health's intention to issue a statement nationally about the potential implication of aggressive water.

## 8. **Projects Undertaken by Engineering Consultancy for Strategy and Asset**

- Wainuiomata/Orongorongo Catchment Fence

Quotations are being obtained to upgrade the access track and clear the route for erection of the third stage of the deer and stock fence along the western boundary of the water collection area.

- 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

The first of the Waterloo well pump control valves has been replaced.

- Refurbishment of the OK Main, Petone

Settlement has been reached with the Contractor, finalising all outstanding issues.

- 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. Transit New Zealand is working towards obtaining financial approval to proceed with the work.

- 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. A geological assessment is being carried out and the influence of the Haywards Substation is being assessed. Pipe supply for this project is being investigated.

- Karori Pumping Station

A replacement pumping station located on Northland Tunnel Road is proposed. Quotations have been received for the supply of the pumpsets and a report recommending purchase of vertically mounted pumpsets prepared. The building design consultant has reviewed the appearance of the building and is preparing a resource consent application to be lodged with Wellington City Council.

- 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 is being repaired by the supplier and should be returned by the end of August.

- Minor Seismic Projects

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

- Installation of 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 proposed. Quotations have been obtained for the supply of the valve.

- 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.

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# **Engineering Consultancy Group**

**July 2004**

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## **Engineering Consultancy Group Review of Operations for the Period Ended 31 July 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**

Tender Documents have been issued to selected contractors. Because these are busy streets and partly State Highway, some construction work will need to be carried out at night.

#### **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.

Pipework has been installed in the valve chamber.

#### **3.4 Mt Albert Reservoir**

This 3.5 ML reservoir will be sited in Mount Albert Park within Berhampore Golf Course. Design work is almost complete and pipework and electrical drawings have been prepared. Work is under way on the preparation of the Contract Documents.

#### **3.5 Onslow Reservoir**

The new 4.5 ML capacity rectangular reservoir is complete and in service.

Backfilling and associated topsoiling is complete, with only minor tidy up items still remaining.

### **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. The second pumpset is in place and commissioning work is under way.

### **3.7 Wellington City Council Flow Meters**

A commission has been received to arrange a Contract to install flow meters. Preliminary investigations are under way.

## **4. Miscellaneous Projects**

### **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. The diversion pipes have been fabricated prior to installation.

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# Laboratory Services

July 2004

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

### 1. Items of Note

- As usual the first financial report for the new year remains incomplete at this stage but we are optimistic that the outcome will be positive.
- Business as usual this period with nothing really standing out of the pack.
- We continue into year two, of three, with the Porirua City Council contract for water supply testing.
- Likewise, we continue into year two, of three, with the Environment contract for sample collection components with their SoE monitoring programme.
- We have been involved with several internal projects evolving from the emptying of Lake 2 at Te Marua.
- Our new Autoclave arrived in the country and underwent pre-delivery trials with final delivery to the expected first week in August.

### 2. Business Summary

#### 2.1 Quality

There were no requests for retesting samples and test reports are timely.

#### 2.2 Health and Safety

No incidents to report for the period.

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# Plantation Forestry

July 2004

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## Plantation Forestry Department Review of Operations for the Period Ended 31 July 2004

### 1. Log Harvest Contract

The uncertainty that has dogged the market for most of this year continued into July. Both freight rates and the exchange rate strengthened, and export markets receded. The only saving grace was that domestic demand stayed firm.

The receivership of Renalls mill at Waingawa was resolved with Kiwi Lumber purchasing the mill and immediately on-selling the chipping and trucking operation. Kiwi now operates the sawmilling activity and has plans to expand the scope and volume of the plant, and the chipping operation chips logs purchased by Panpac and trucks them the Whirinaki (back loading fertiliser from Awatoto.)

We have had three crews all working in areas affected by the February storm. As a consequence, we have had only limited ability to react to any market changes. Even now, some six months after the trees were blown over, we are only just starting to see sapstain appearing. Sapstained logs have to be downgraded into “export rough” grades.

Although pruned prices have not improved to any great extent, we are still planning to return to Puketiro in early October. Prices for lumber into the United States is steadily improving, so it is hoped that pruned prices will follow. Rayonier is trying to secure a “term” arrangement with JNL, so we can have some confidence that there is a consistent market before we shift operations out of Valley View.

Production for the July period was as follows.

Output by grade at Clarkes Creek/Upper Long Spur was:

Grade		Tonnes	%
Pruned Domestic		348.53	8.87
Pruned Export		0	0
Run of Bush		0	0
S/A Grade		930.73	23.68
L Grade		694.24	17.66
R Grade		202.83	5.16
K Sawlog		203.24	5.17
Roundwood		0	0
K Rough		817.47	20.8
Pulp		558.50	14.21
Xport Pulp		106.48	2.71
O/S Pulp		80.46	1.77
Total		3930.09	

Revenue was \$66,399.06 at an average of \$17.62 per tonne.

### Tunnel Gully

Grade		Tonnes	%
S/A Grade		719.08	50.55
L Grade		138.12	9.71
R Grade		246.16	17.30
K Sawlog		80.24	5.64
K Rough		53.86	3.79
Pulp		158.35	11.13
O/S Pulp		26.8	1.88
Total		1,422.61	

Revenue totalled \$43,380.60 at an average of \$30.63.

Overall harvesting for the month returned \$109,779.66 at an average of \$20.51 per tonne.

## 2. Silviculture Contracts

Eight hectares out of a total of 257 hectares were completed in July.

Work commenced in the Whakatikei Block. It was disappointing to see that quad riders had cut a new track into the headwaters of the Whakatikei River and created a large “bog hole” to play in.

At this stage it is felt that it will be trespassers responsible rather than the clubs which access the forest by way of permits.

## 3. Plantation Forestry Operations

Work has continued monitoring the three harvest crews. There has been some minor road construction at Clarkes Creek, Upper Long Spur and Martins, and new skids have been constructed to access further windthrown trees. Resource consents have been issued to install two culverts in Martins Block but actual construction has been delayed by wet weather.

Some road maintenance was carried out in Rallywoods and Puketiro to remedy slumps and slips following the February storm. Prior to the most recent weather event (17/18 August), we were confident that operations could commence at Puketiro at a moment’s notice.

Replanting continues but we are now having difficulty sourcing seedlings. To date this season we have planted 115,000 trees. This equates to 76.67 hectares.

We have had to further review the cutting plan as more windthrow is discovered and as an alternative, should we be unable to move to Puketiro.

#### **4. Forest Access**

There is still no access to Maungakotukutuku but we are in discussions with other forestry owners with a view to securing access for all. Time will tell if we are successful.

After obtaining specific approval from the OSH Inspectorate, Upper Hutt City Council has engaged a digger to remove the slip on Karapoti Road reported in June.

There are continuing incidents of minor slips and further windthrown trees following each rain or wind event. These are a consequence of an extremely wet year and it is likely that this pattern will continue well into summer.

#### **5. Market Trends**

The domestic markets remain reasonably strong, while export markets are definitely weak. Although the dollar had eased at the time of the last report, since then it has consistently firmed and would be almost 8.5 percent stronger by month end. Unfortunately, with the uncertainty surrounding Iraq, crude oil prices have reached new highs and, although China is actively restraining demand, shipping charges have remained high.

The only glimmer of hope is the improving price for lumber and mouldings in the United States, provided it continues, should help lift pruned prices.

Despite this mediocre news, it should be remembered that had the windthrow occurred in either younger trees or elsewhere in the forest they may have been a total loss and we may have faced costs to prepare the areas for replanting.