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# Greater Wellington Water

July 2003

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# **Operations Group**

**July 2003**

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# Operations Group

## Review of Operations for the Period Ended 30 July 2003

### 1. Items of Note

- The high numbers of algae (non-toxic) in Lake 2 remain. Trials on the best treatment regime for this source were carried out prior to giving the go ahead for the 1080 exercise. The trials proved to be successful and confirmed that the treatment plant output could be maintained.

### 2. Supply Situation

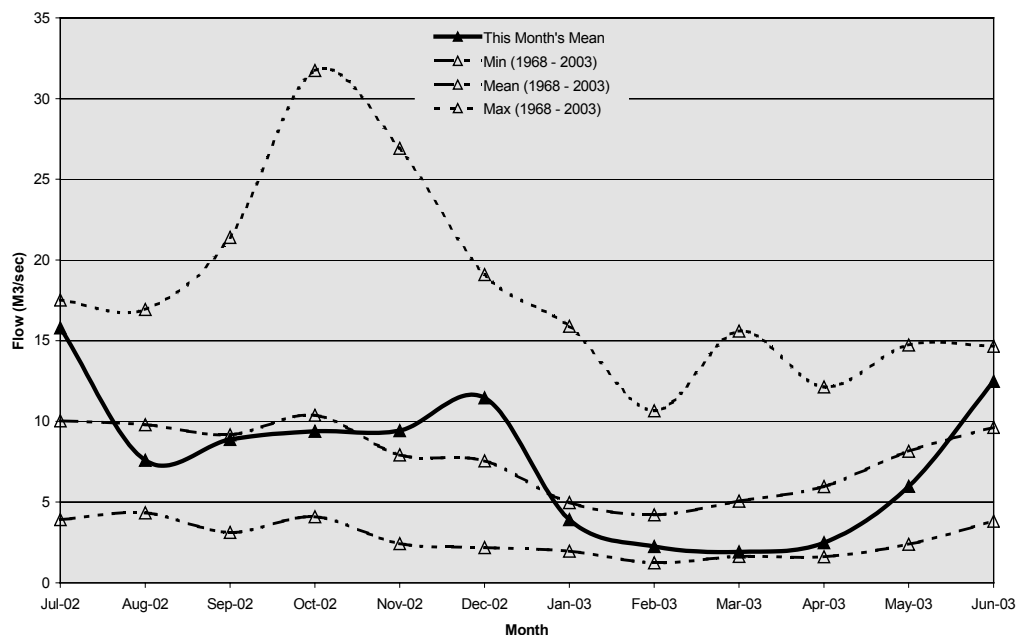
The bi-monthly seasonal forecast for Wellington for July/August, issued by the Meteorological Service, is as follows:

Rain	Remaining below normal
Wind	Near normal, maybe more northwesterlies than normal
Temperature	Rising above normal but a few cold snaps
Sunshine	Continuing above normal
Confidence	Moderate

There should be several periods of dry weather with light winds and warm days. Cold fronts are arriving at the rate of one or two per week. The northwest winds preceding these fronts and the wet periods accompanying them are likely to become more noticeable during September. Some of the fronts may be followed by chilling southerly winds. One such cold spell is likely during the third week of August.

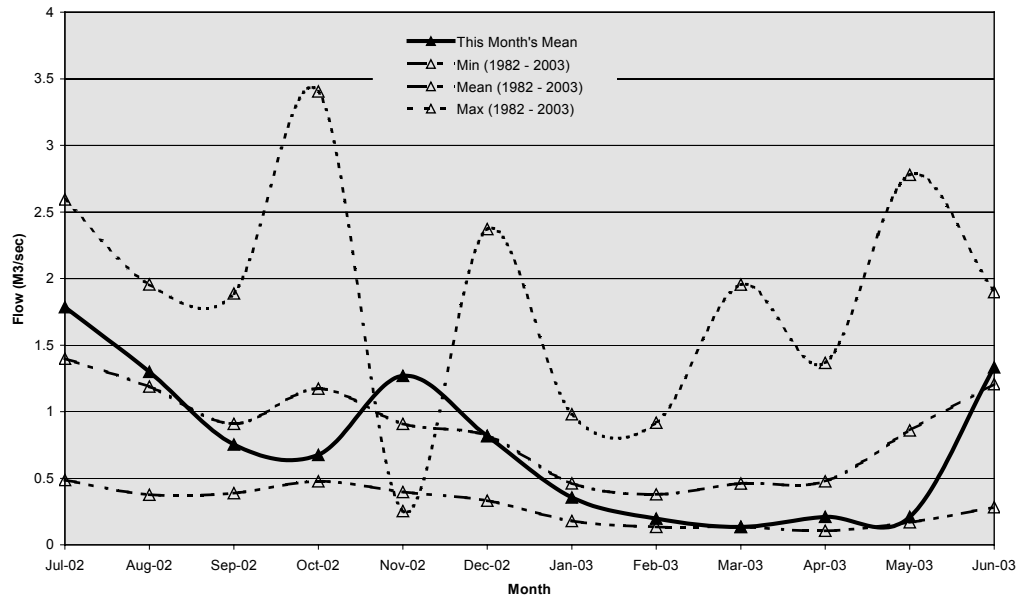
### Hutt River Flows

The mean monthly flows in the Hutt River for the period was higher than average.



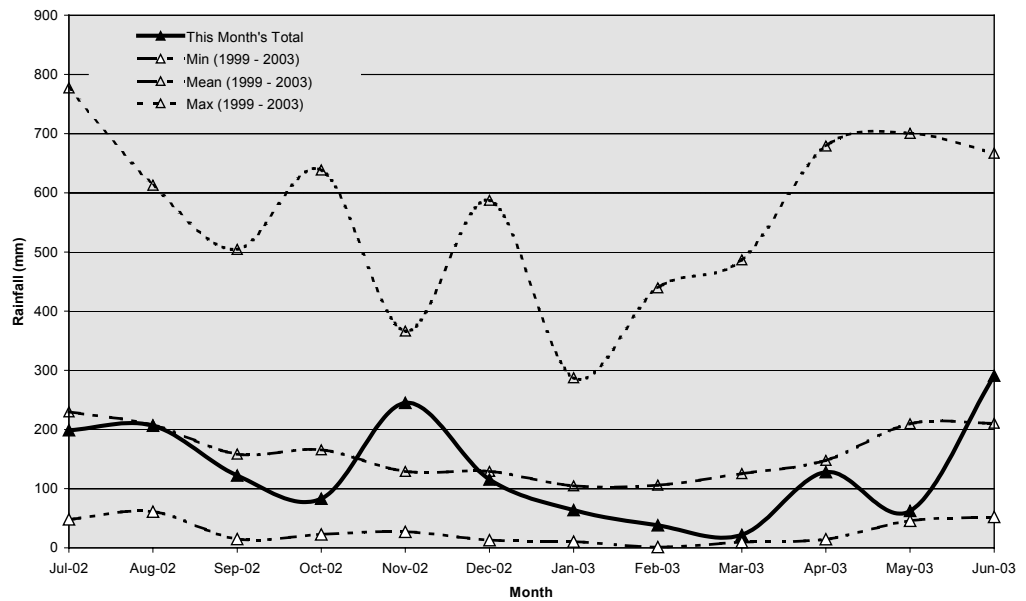
## Wainuiomata River Flows

The mean monthly flows in the Wainuiomata River were near average.



## Aquifer Levels

The water level in the Waiwhetu aquifer was above average.



### 3. Treatment Plants

#### 3.1 Wainuiomata

##### 3.1.1 Quality

There are no quality issues to report.

### 3.1.2 **Health and Safety**

There are no accidents or incidents to report.

### 3.1.3 **Operations**

- The two new Treatment Technicians for Wainuiomata/Waterloo commenced work early in the month.

### 3.1.4 **Plant Tours**

There were no plant tours during the period.

### 3.1.5 **Capital Works Projects**

- Tender Documents are being prepared for the PLC replacement.
- A proposal for upgrading the Wainuiomata River intake is being prepared.

## 3.2 **Waterloo Water Treatment Plant**

### 3.2.1 **Quality**

There are no quality issues to report.

### 3.2.2 **Health and Safety**

There are no accidents or incidents to report.

### 3.2.3 **Operations**

- Initial draw-down tests were performed on the wellfield.
- Aeration trials will soon be able to continue after installation of a new reservoir interconnection valve.

### 3.2.4 **Plant Tours**

There were no tours during the period.

### 3.2.5 **Capital Works Projects**

- Construction of the emergency generator shed is almost complete, with only the power and lighting to be installed.
- The installation of the new standby generator has been delayed. Delivery has been made and installation is under way.
- Cost estimates are being prepared for the installation of level/pressure monitoring equipment in each of the wells.

### 3.3 **Gear Island**

#### 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**

- Refurbishment of the site laboratory/instrument room is almost complete.

#### 3.3.4 **Plant Tours**

There were no tours during the period.

#### 3.3.5 **Capital Works Projects**

- Replacement of the control panel has been completed.
- Installation of additional pH meters for triple validation is under way.

### 3.4 **Te Marua**

#### 3.4.1 **Quality**

There are no quality issues to report.

#### 3.4.2 **Health and Safety**

There are no accidents or incidents to report.

#### 3.4.3 **Operations**

- Blending trials have now been completed and the final report is being prepared.
- Equipment is being sourced so that an underwater video inspection of the lakes inlet pipework and tower base can be carried out.
- The 1080 drop occurred on 28 July.
- Repairs to leaks on the Kaitoke strainer house pipework will be carried out whilst the intake is off for the 1080 exercise.

#### 3.4.4 **Plant Tours**

There were no tours during the period.

3.4.5 **Capital Works Projects**

There are no capital projects under way at the moment

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**

- All scheduled maintenance activities carried out as planned

4.4 **Projects**

- Options are being investigated for modifications to the distribution telemetry system so that it can operate independently of the Wellington City Council system.
- Work has commenced on updating pipeline drawings to show asset details.





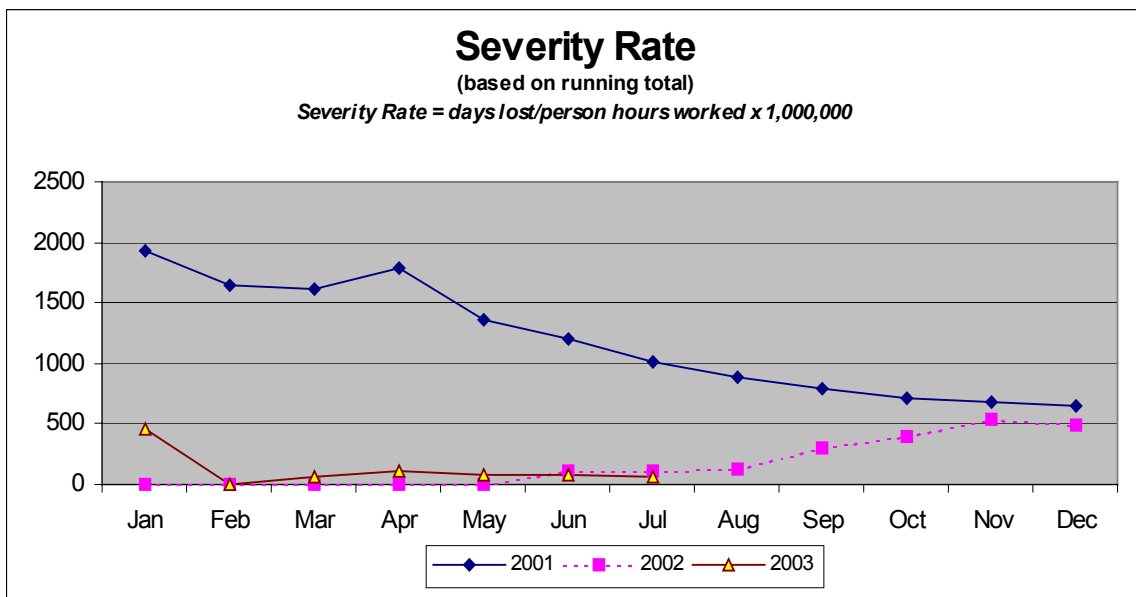
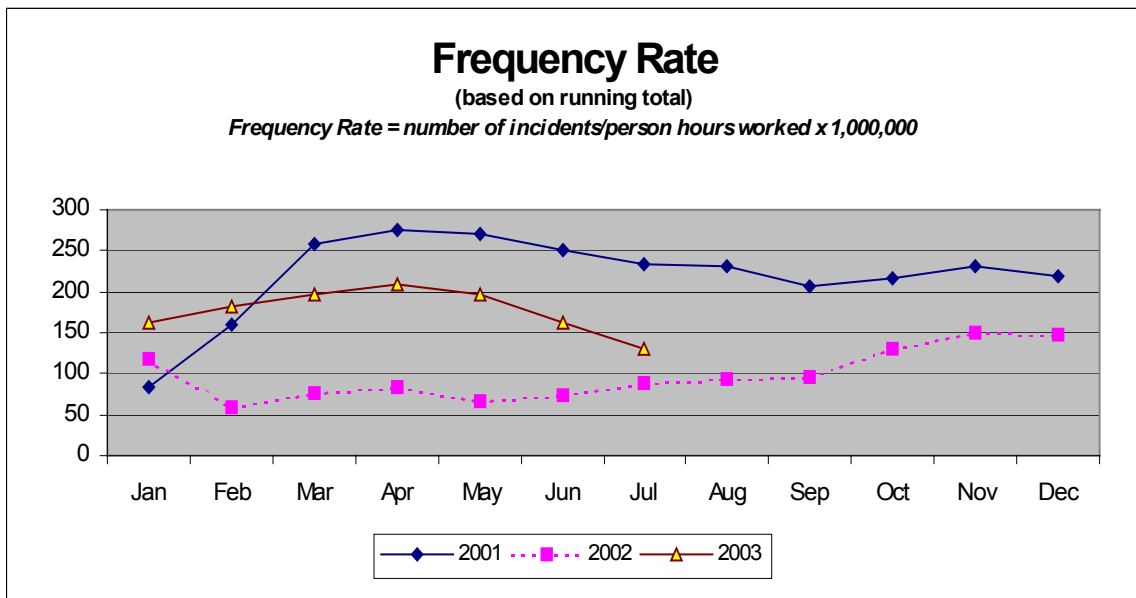
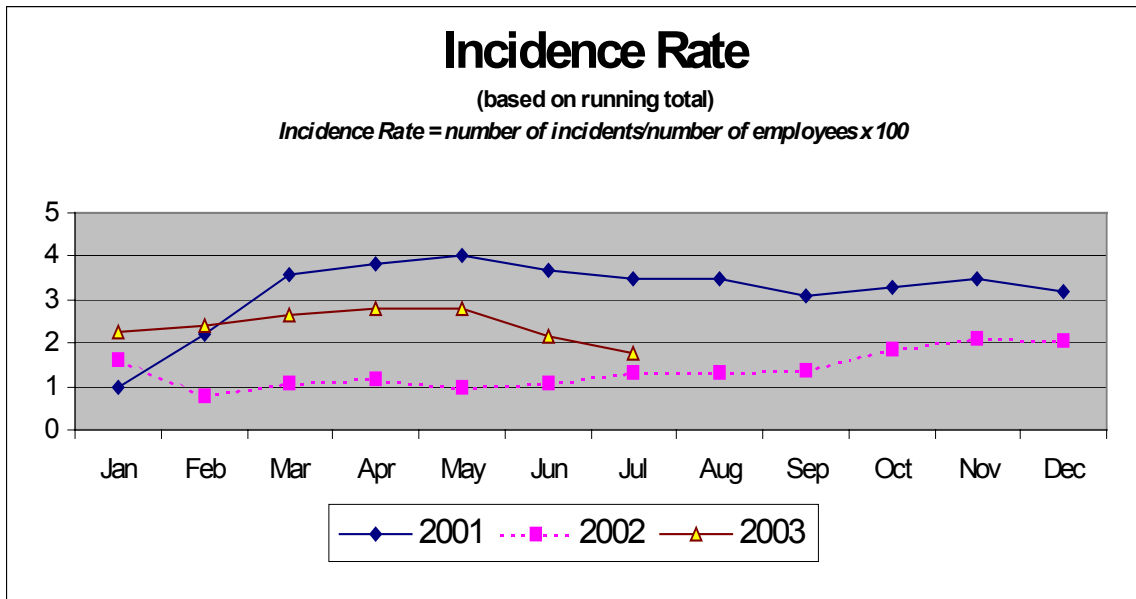
**STRATEGY AND ASSET**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hours worked	518	602	709	632	584	596	854	0	0	0	0	0
Employee numbers	5	5	5	5	5	5	5	0	0	0	0	0
Injuries	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 1,000,000 hours exposure)	0	0	0	0	0	0	0	0	0	0	0	0
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0	0	0

<b>FORESTRY</b>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hours worked	409	455	394	644	581	648	870	0	0	0	0	0
Employee numbers	3	3	3	3	3	3	3	0	0	0	0	0
Injuries	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 1,000,000 hours exposure)	0	0	0	0	0	0	0	0	0	0	0	0
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0	0	0

Utility Services Division Combined	Jan	Feb	Running Total from 1/1/02	Mar	Running Total from 1/1/02	Apr	Running Total from 1/1/02	May	Running Total from 1/1/02	Jun	Running Total from 1/1/02	Jul	Running Total from 1/1/02	Aug	Running Total from 1/1/02	Sep	Running Total from 1/1/02	Oct	Running Total from 1/1/02	Nov	Running Total from 1/1/02	Dec	Running 12 month Total
Hours worked	8,449	8,135	16,584	8,774	25,358	8,072	33,430	7,334	40,763	8,216	48,979	12,518	61,497										
Employee numbers	58	59	63	59	63	58	63	58	62	59	62	61	65										
Injuries	3	0	3	2	5	2	7	1	8		8	0	8										
Days lost	0	0	0	2	2	2	4	0	4		4	0	4										
Incidence rate (number of incidents per 100 workers)	5	0	2.4	3.4	2.6	3	2.8	2	2.6		2.6	0	1.8										
Frequency rate (incidents per 1,000,000 hours exposure)	355	0	181	228	197	248	209	136	196		163	0	130										
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	171	59	248	105	0	86		71	0	57										

Incidence rate = (number of incidents/number of employees) x 100  
 Frequency rate = (number of incidents/person hours worked) x 1,000,000  
 Severity rate = (days lost/person hours worked) x 1,000,000



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# **Strategy and Asset Group**

July 2003

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# Strategy and Asset Group Review of Operations for the Period Ended 31 July 2003

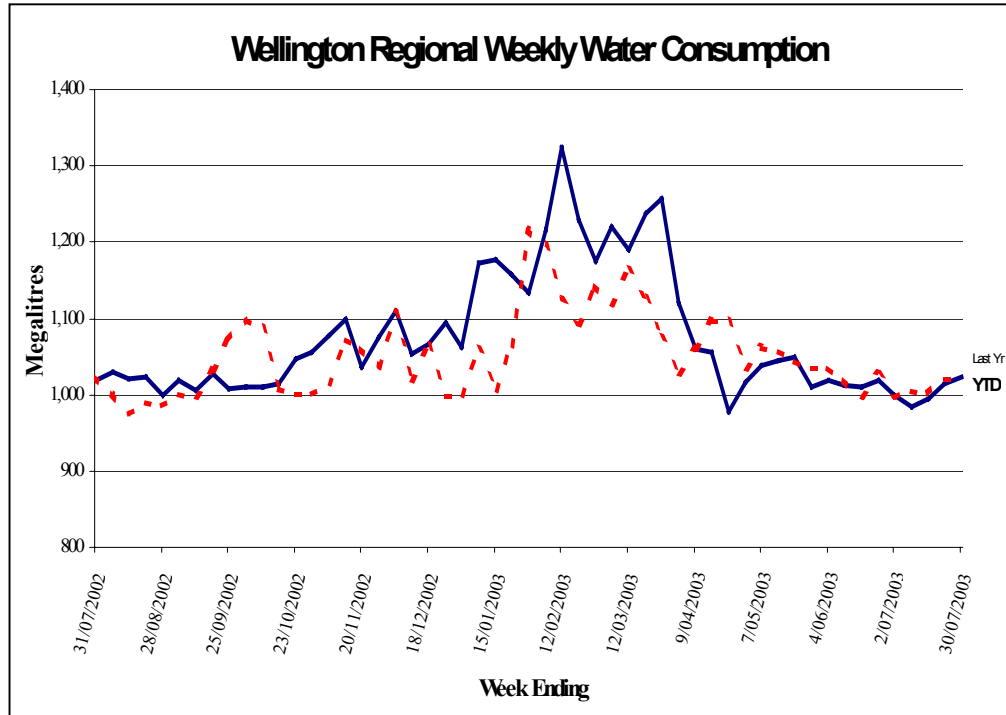
## 1. Items of Note

- Water sales volumes for the period show the traditional winter pattern, with only minor variations between days.
- It is understood that the issuing of the Certificates of Title for the Karori Reservoir land is imminent, following a very drawn out process.
- A separate report outlines the response from the Hutt City Council as to whether the water from the Waterloo Water Treatment Plant supplying Hutt City Council should be chlorinated. The City Council's preference is for the status quo, that is, unchlorinated water.
- A report is being prepared for the September Policy, Finance and Strategy Committee meeting of the Council regarding wind generation and constraints of the Wellington Regional Water Board Act 1972. A relatively short Bill will be proposed that, if passed, will become an Act that will sit alongside the existing Wellington Regional Water Board Act 1972.
- Two of the major capital works items for the year are a new Karori Pumping Station and relaying the pipeline from the Orongorongo Tunnel to the Wainuiomata Water Treatment Plant. With regard to the Karori Pumping Station, it appears that we may have underestimated the time that is required to obtain a new site. This is likely to result in some underexpenditure in the current year, with a carryover to the following year. In the case of the Orongorongo pipeline, the pipe will be ordered in August and this project is on target for completion by 30 June 2004.

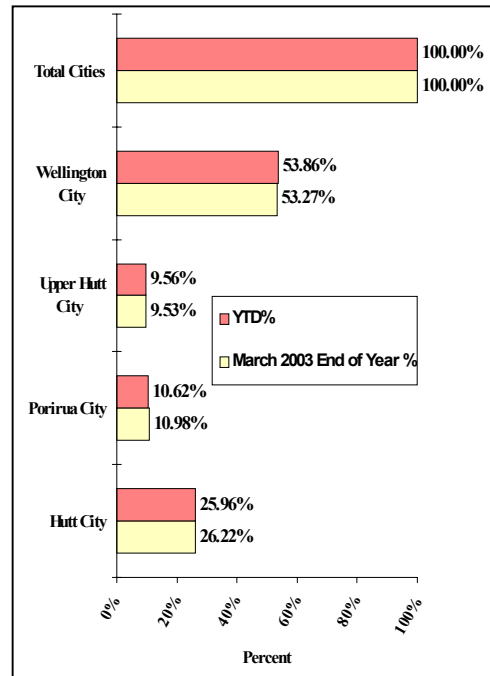
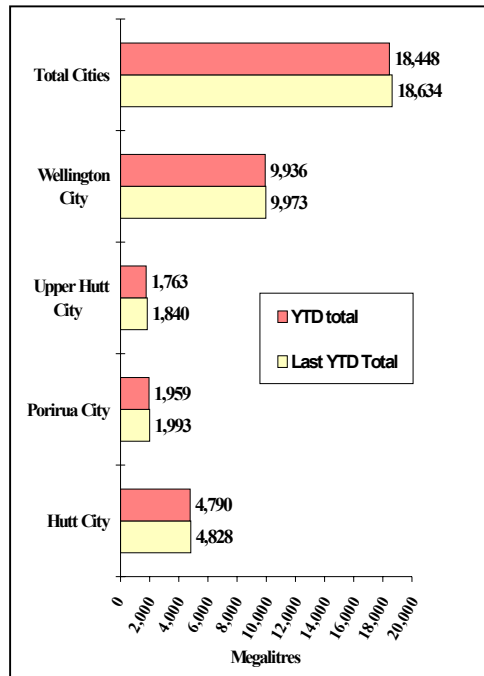
## 2. Sales Volume

Graphs outlining sales volumes are on page 14.

### Water Sold Over the Last 12 Months



### Water Sold from 1 April 2003 to 30 July 2003



## 3. Asset Management

- The Capital Works budget for 2003/4 is \$5.111 million. Major projects are:

- Kaitoke weir improvements - \$200,000
  - Stage 2 of the Wainuiomata Catchment northern boundary fence - \$100,000
  - Modification to the Orongorongo intake - \$55,000
  - Replacement of equipment at the Te Marua Water Treatment Plant - \$500,000
  - Replacement of control equipment at Wainuiomata Water Treatment Plant - \$100,000
  - Relocation of the Pukerua Bay branch on the Paremata Bridge - \$400,000
  - Replacement of the OK main between the Wainuiomata Tunnel and the water treatment plant - \$1,250,000
  - Relocation of the Karori Pumping Station - \$600,000
  - Construction of a new pumping station to house the Point Howard pumps - \$417,000
- Final plans for the transfer of Karori Reservoir land to the Wellington City Council have been received and approved. Following final administrative clearance, the land will be formally transferred to the Wellington City Council. This is expected to happen soon.
  - Construction work on the development of the area of land above Porirua City known as the Aotea Block, which will have a significant impact on the branch main supplying the Porirua Reservoir is progressing. Relocation of a section of this main is being undertaken at the Contractor's expense under Greater Wellington Water supervision.
  - Relocation of some Greater Wellington Water drainage works adjacent to the Stuart Macaskill Lakes to accommodate the upgrading of State Highway 2 near Te Marua is complete. This work is at Transit New Zealand's cost.

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

- Discussions have been initiated with the Public Health Service regarding the grading of water treated at Waterloo and Gear Island, and pumped to Wellington. Unlike the water supplied to the Hutt Valley from Waterloo, this water is chlorinated.

An upgrade in the grading from the present B to A should be easily achievable but will require the assembly of compliance data over the next year.

- Work has begun on drafting Public Health Risk Management Plans required by the Ministry of Health. It is expected that new health legislation, to come into force in mid-2004, will make the provision and implementation of such plans mandatory. Good risk management procedures are already in place, so that significant changes to the way the plants and system are operated are not expected.

## 5. Environmental

- Construction of a wheel and under vehicle wash at the entrance to the Wainuiomata/ Orongorongo Catchment is complete. The purpose of the wash is to reduce the risk of infestation of these catchments by exotic weeds.
- Investigation work will begin shortly aimed at ensuring the long-term safety of the decommissioned Lower Dam at Wainuiomata. At the same time the possibility of creating a wetland immediately upstream of the dam will be studied.
- The installation of power factor correction on six pumps in the Waterloo wellfield has improved the efficiency of their operation and is saving between \$750 and \$950 per month in electricity charges. The payback period on the investment is about 18 months.

## 6. Catchment Management

- The planned 1080 drop finally took place on 28 July. This was the first suitable period after the power crisis was deemed to be over. The distribution of both the pre-feed and toxic bait took place as planned and there were no incidents of any kind.
- The weather following the 1080 drop remained fine for almost a week and initial signs confirm a good result. The post-1080 survey will be carried out and the results will be reported in due course.
- It is recommended that the current level of accompanied public access into the catchments continue for the next three years. Specific proposals are set out for Committee consideration elsewhere within the order paper.
- A number of instances of trespass and/or vandalism in the recreation area were identified. There is little that can be done to eliminate this type of behaviour.
- The snowfall of 5/6 July was the heaviest that staff could remember and the access road to the Orongorongos was impassable for several days because of trees collapsing under the weight of snow.
- Professional pig hunters caught 17 pigs in the catchment. These were much harder to find than on previous hunts, which suggests that the total population may be falling.
- The retaining wall to support the root structure of an endangered rimu at the Orongorongo intake was completed. The base of the tree was backfilled and shrubs planted to prevent rainfall erosion.

Subsequently we arranged for the Department of Labour Bush Inspector to assess the site and he was of the view that no more could be done and monitoring after significant wind or rain events in the future was all that was needed

## 7. **Marketing**

- An initial meeting was held with a representative of our four water supply customers regarding a formal contract for wholesale water supply services. Greater Wellington Water initiated Contract discussions in 1998. However, at that time we could not reach agreement about content. The city councils indicated their willingness to revisit this issue earlier this year and discussions have now started over a form of wording provided by our customers. This appears to be drawn partly from our 1998 draft Contract Document and partly from a contract used by Melbourne Water.
- New signage was fabricated and installed at Greater Wellington Water's water treatment plants, pumping stations and reservoirs during June. A site visit to all facilities during July identified several minor issues to be rectified. This work has been completed satisfactorily.
- Further work was undertaken as part of the communications subgroup of the multi-agency Wellington Emergency Water Supply Planning Group. The Emergency Water Planning Group has identified a shortage of locally stored water after a major earthquake, as reported to the inaugural Civil Defence and Emergency Management Group meeting in May 2003. The communications subgroup worked during July to develop a regional communications plan to address that shortage of stored water.
- A media release was prepared to announce that a 1080 possum control operation in the Hutt Water Catchment commenced on 29 July. There has been very little public opposition to the operation and relatively little media interest.
- Planning commenced for a water supply annual report, in accordance with annual plan commitments
- A review of current Water web site content was undertaken in preparation for the first meeting of the Council's Website Redevelopment Project.

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

- Big Huia Pipeline River Crossing

An assessment is being made of the extent of work required to strengthen



the Big Huia pipeline river crossing to meet current earthquake loading standards.

- Wainuiomata/Orongorongo Catchment Wheel Wash

The construction of a wheel wash at the entrance to the catchment area has been completed.

- Wainuiomata/Orongorongo Catchment Fence

The Contract for erection of the first stage of a deer fence along the northern boundary of the water collection area is almost complete. This fence will prevent the reinfestation of deer, pigs and goats from the adjacent farmland. Preparations are being made for stage 2.

- Wainuiomata Water Treatment Plant Outlet Control Valve

Replacement and relocation of this control valve is being investigated.

- Garaging for Waterloo Wellfield Generators

The construction of an extension to the treatment plant to house the mobile generators is almost complete.

- 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

A pipeline is being designed for erection on the new bridge being constructed at Paremata. The pipe and sliding couplings have been ordered. Drawings of the installation are being finalised.

- Aotea Block Development

The Contractor developing the Aotea Block is deviating the Porirua Low Level Reservoir branch pipeline.

- Hutt Park Deviation

The construction of a new access road into Hutt Park is proceeding. This requires deviation of the Randwick to Rahui pipeline. The pipeline has been shut down and Petone residents are being supplied with chlorinated and fluoridated water.

Hutt City Council requested we also relay the pipeline across the Hutt Park Roundabout.

This work is nearing completion.

- Orongorongo Pipeline Replacement

The Orongorongo pipeline from the tunnel to the Wainuiomata Treatment Plant is due for replacement. A new pipeline is being designed and quotations invited for the supply of the pipe.

- Karori Pumping Station

Options for the relocation of this pumping station to a more secure site have been evaluated. Negotiations are being held with Wellington City Council for approval in principle for siting the pumping station alongside Appleton Park. Geotechnical investigation work has been carried out on-site.

- Point Howard Pumping Station

Relocating the Point Howard pumps from the underground pumping station at Hutt Park is proposed.

A site alongside Seaview Road is proposed. A preliminary site layout drawing has been prepared.

- Pinehaven Pumping Station

The pumpsets at Pinehaven Pumping Station have reached the end of their economic life. One of the pumps no longer meets the duty requirement for the site.

Quotations have been invited for the supply of replacement pumps.

- Minor Seismic Projects

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

- Assessment of the performance of the Mangaroa and Black Creek Bridges is proceeding.
- The non-return function of inlet control valves on service reservoirs is being checked.
- Minor upgrade work is being arranged for a number of exposed pipeline stream crossings.

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# **Engineering Consultancy Group**

July 2003

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## **Engineering Consultancy Group Review of Operations for the Period Ended 31 July 2003**

### **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**

Current projects under way are detailed in the following sections.

#### **3.2 Wakefield Street, Stage 2 and Webb Street**

This project is to replace water mains in Wakefield and Victoria Streets from Cuba Street to Hunter Street. The design is virtually complete. However, a late change in programming and extent of work because of the construction of the large stormwater tunnel has required changes to the Drawings and Contract Documents. Tenders have been invited and received, with construction phases to suit the Wellington City Council programme.

#### **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 resource consent for siting the reservoir in Carter Park has been received. Tenders for the reservoir construction have been invited.

#### **3.4 Southern Suburbs Reservoir**

This 3.5 ML reservoir will be sited in Mount Albert Park within the Berhampore Golf Course.

Preparation of the material for public consultation is nearing completion.

#### **3.5 Onslow Reservoir**

There are two reservoirs on the Onslow site.

The rectangular western reservoir has been demolished and a new larger reservoir is being built on the same site. The floor construction is complete and the pipework has been installed. Wall construction is well under way. Until the new reservoir is commissioned, the whole zone is being supplied from the very small circular reservoir. This has required close co-operation between Greater Wellington Water operational staff and the Wellington City Council system controllers.

### **3.6 Warwick Street Pumping Station**

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

The electrical control panel has been supplied to the site and connected to the four pumpsets and commissioned. The Contract for the installation of the new pumps is under way, with pipework fabrication complete. However, supply of the two Wellington City Council pumps has been delayed by the manufacturer.

## **4. Miscellaneous Projects**

### **Emergency Water Supply**

The project team includes water supply and emergency management staff of the five councils, and representatives of the health sector. Progress is being made on the preparation of a joint communications strategy.

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# Laboratory Services

June 2003

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## Laboratory Services Department Review of Operations for the Period Ended 30 June 2003

### 1. Items of Note

- The Laboratory recorded an operating surplus of \$28,900 for the 2002/3 financial period, an amount comfortably ahead of budget. However, numbers for July, though incomplete at this stage, are expected to be down with loss of income from some Resource Investigations' sources and projects.
- The terms of the Ambient Freshwater Quality Monitoring 2002-2003 service level agreement were rolled over into July. This will only be on a month by month basis until the new Resource Investigations' Regional Monitoring Contracts are finalised and get under way.
- We were successful with our Tender for the Porirua City Water Testing Contract. Although not huge in monetary terms, it was a great boost to regain this one in the face of stern opposition. The term of the Contract has now been extended from one to three years, commencing 1 July 2003.
- We have been involved in the laboratory monitoring for the pest control operation in the Hutt Water Catchment this winter. This has involved analytical testing for mainly 1080, but also *Giardia/Cryptosporidium* and *E. coli*, run-off into the river at the Kaitoke weir. Testing commenced two weeks ahead of the "1080 drop" on 29 July and continues on selected days for three months out.
- We deserve to be optimistic in resolving the niggling issue with low level detection limits and consistency of performance with the TOC/TN analyser reported earlier. This has tormented us since what seems like day one and now allows us to move on to gaining accreditation and reclaiming substantial work we currently subcontract out.
- We have lost more than we stand to gain as the result of the Environment Division confirming the successful Tenders on 30 July for their Regional Freshwater and Groundwater Monitoring Programme, 2003 to 2006. Our Tender was successful for Components 1 and 2 only, which involve sample collection and field testing for sites in the Wairarapa and western regions. We will be presented with a Contract for our review.

### 2. Business Summary

#### 2.1 Quality

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

Good results were reported with the interlaboratory proficiency testing programme.

## 2.2 **Health and Safety**

There were no accidents or incidents to report for the period.



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# **Plantation Forestry**

**June 2003**

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## Plantation Forestry Department Review of Operations for the Period Ended 31 July 2003

### 1. Log Harvest Contract

The fickle dollar has continued to suppress returns this month. While there have been real price increases at destination for export logs, the dollar has whittled any benefits down to around NZ\$1 per tonne.

The pruned market has remained depressed, with some suggestions that interest may be growing appearing towards the end of the months with mills enquiring after pruned logs rather than the Rayoniers of this world trying to persuade them to take it. This improvement did not extend to increasing the price though.

Sawlog has generally held its price, with demand holding for the better grades. Lower grade sawlog is under pressure as loggers attempt to move from export to domestic markets. In our case the small sawlog purchased by Renalls at Masterton has really helped improve average stumpages and this reduced our need to rely on export markets.

Applying September 2002 prices to the July production shows a stumpage of \$144,985, some \$61,455 better than the actual result of \$83,530.

The logging of some remnant pruned stands in the Hukinga Forest that was negotiated with Forest Asset Management Ltd has commenced but the first loads will come out in the August accounting period. Initial suggestions are for an average stumpage of around \$29 for this operation. This compares with around \$15 for Reservoir Ridge.

Production for the July period was 5,613 tonnes, \$83,530.

Output by grade at Reservoir Ridge was:

Grade		Tonnes	%
Pruned Domestic		2	0.04
Pruned Export		0	0
Partial Pruned		0	0
S/A Grade		1,204.44	21.46
L Grade		501.62	8.94
R Grade		633.08	11.28
K Sawlog		594.22	10.59
Roundwood		0	0
K Rough		1546.8	27.56
Pulp		830.82	14.8
O/S Pulp		259.11	4.62
Xport Pulp		41.04	0.73
Total		5,613.13	

## 2. **Silviculture Contracts**

The Tenders for the proposed silviculture programme for the 2003/4 year have been assessed and Contracts finalised with Forest Developers and Management Ltd, and Green Gold Forestry Contractors.

Planting will continue behind the logging crews while the weather remains suitable.

## 3. **Plantation Forestry Operations**

Given that the winter has been remarkably dry thus far, there have not been any significant issues relating to the forests.

We are undertaking some fence repairs on our boundary with “Fern Hill” at Puketiro. As both sides of the boundary are planted in radiata, the repairs are as much to delineate the boundary as they are to retain stock movements.

We have undertaken some hand clearing of foliage on the route to Hukinga in preparation for the logging operation.

Most “birdsnests” have now been burnt, except a large one adjacent to the high tension lines, which requires a gentle southerly to ensure the lines are not put at risk. The power authority is part of the decision process on this one.

## 4. **Forest Access**

There is still no acceptable access to Maungakotukutuku Forest.

There are some minor slips within Pakuratahi West following the recent rain but, other than this, there are no problems that we are aware of.

We have widened the road at the Pram track ford and replaced/relaid a number of culverts between there and the logging site in the Hukinga.

We have also laid fines on most of the route from McCurdy’s Corner to the Farm Forestry Block, partly to prepare for the additional traffic related to the Hukinga logging and to ensure ongoing trouble free access to Reservoir Ridge.

## 5. **Market Trends**

Although there have been several occasions when I have thought sensibility had returned to the world and the New Zealand dollar was on the way back to where it belongs, alas each time it has returned to challenge the US\$0.60 range and any thoughts of relief have disappeared. We received a minor improvement in export prices this month but nothing significant.

Domestic sawlog prices remain static but demand is starting to wane with oversupply and increasing difficulty selling the lower grades.

As mentioned above, there may be some glimmer of hope that the pruned market has “bottomed out”, as mills are now actively seeking supply. We will not know until September whether this increase in interest will translate into improved prices.

We are due to return to the pruned stands in Puketiro come summer but at present we can only “wait and see”. With prices as they are, I would not even recommence roading operations.