
Water Supply

June 2002

Operations Group

June 2002

Operations Group Review of Operations for the Period Ended 30 June 2002

1. Items of Note

- A very routine period during which the treatment plants continued to operate satisfactorily.

2. Water Quality

A total of 233 samples from trunk mains were tested for coliform organisms. None of these samples tested positive.

A total of 46 samples of treated water from treatment plants were tested for faecal coliforms. None of these samples tested positive.

Secchi disc water clarity in the north lake at Te Marua varied between 3.3 m and 4.4 m, and in the south lake between 4.2 m and 5.0 m. These are considered satisfactory.

The dominant phytoplankton were as follows:

- North lake: *Staurastrum*, *Mougeotia*, *Ankistrodesmum*
- South lake: *Cosmarium*, *Staurastrum*, *Ankistrodesmum*

Cosmarium and *Staurastrum* produce a grassy smell when abundant. *Mougeotia* is also a filter clogging algae.

Dissolved oxygen (1 O.O- 11.4 mg/L) was satisfactory. pH values were satisfactory (7.4-7.9).

Giardia and *Cryptosporidium* results were as follows:

Te Marua

Lakes) <i>No Giardia</i>) <i>No Cryptosporidium</i>
Intake) <i>No Giardia</i>) <i>No Cryptosporidium</i>
Treated Water) <i>No Giardia</i>) <i>No Cryptosporidium</i>

Wainuiomata

Treated Water) <i>No Giardia</i>) <i>No Cryptosporidium</i>
Lower George Creek and George Creek south arm combined) <i>Low Giardia</i>) <i>Low Cryptosporidium</i>)
Orongorongo and Big Huia Intake combined) <i>No Giardia</i>) <i>No Cryptosporidium</i>
Wainuiomata intake) <i>Low Giardia</i>) <i>Low Cryptosporidium</i>

Guidelines Criteria

0-10 oocysts per 100 litres = low
10-50 oocysts per 100 litres = medium
>50 oocysts per 100 litres = high

3. Supply Situation

The bi-monthly seasonal forecast for May/June 2002 issued by the Meteorological Service is as follows:

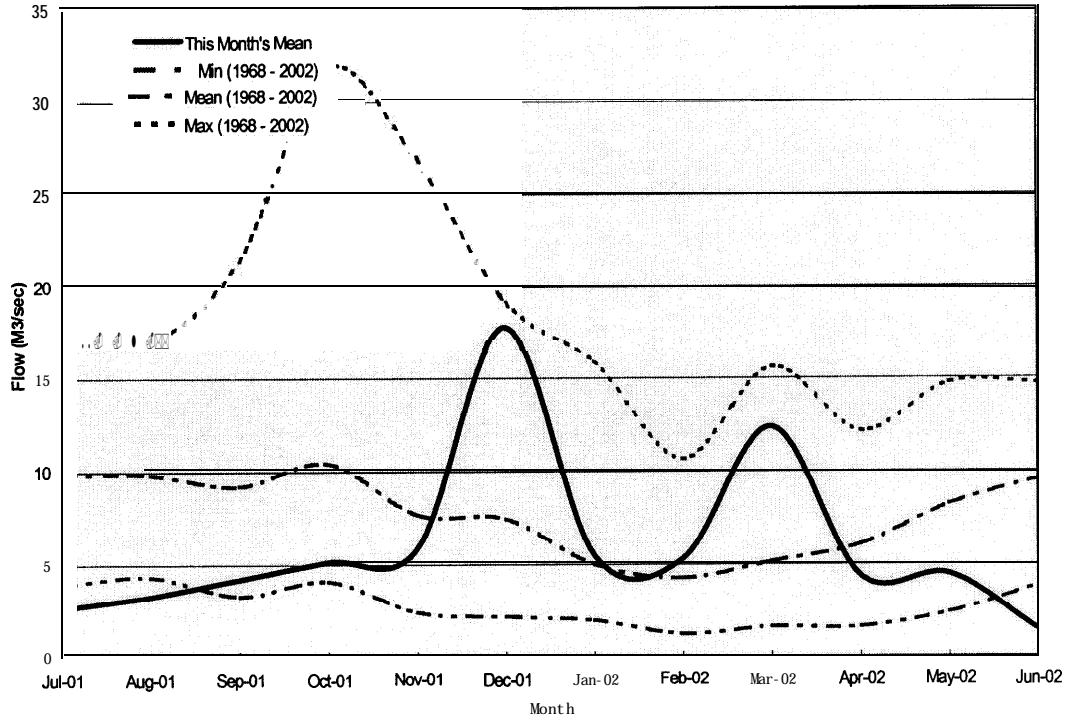
For Wellington

Rain :	About normal. Some places may continue below normal
Wind:	Some cold southeasterlies
Temperature:	About normal after a cool April
Sunshine:	About to above normal
Confidence:	Moderate
Specials:	Changeable

The main weather pattern should be passing cold fronts and troughs, each of these being heralded by a period of gusty northwest or westerly winds accompanied by about a half-day of rain or showers and followed by a brief southerly or southeasterly wind change. Some places have been sheltered from recent rains by the bulk of the South Island and this trend is likely to continue. However, there is also a small chance of a heavy dump of rain from a low pressure system deepening in the Tasman Sea. Temperature and sunshine are expected to return to normal levels after a rather cloudy and cool start to autumn.

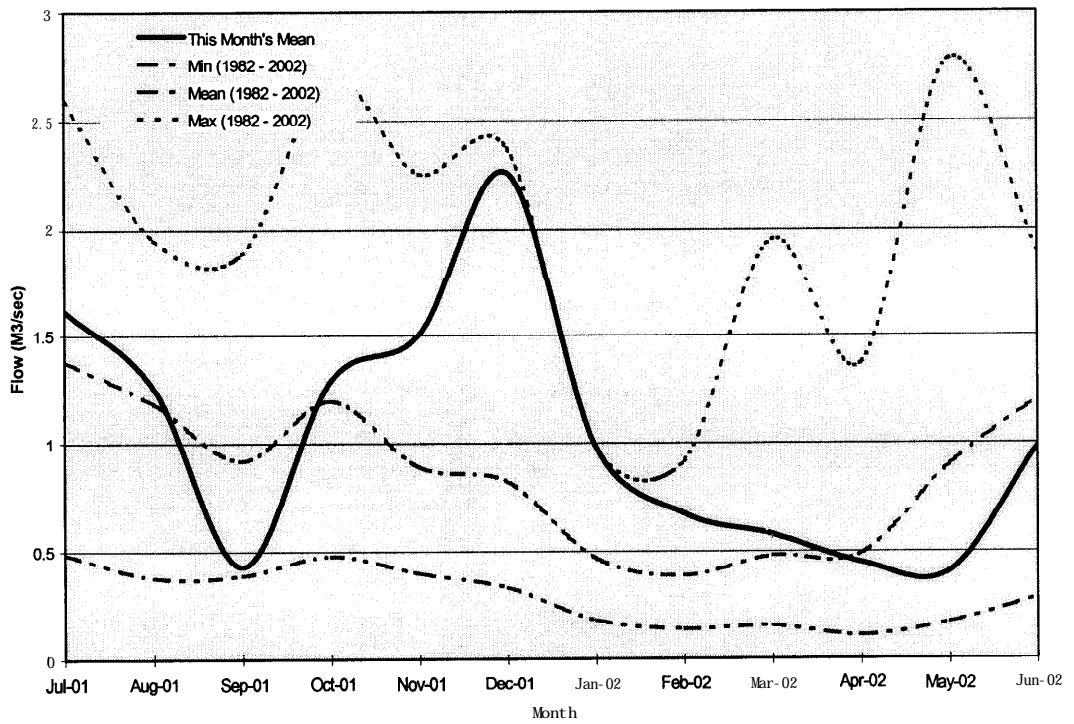
Hutt River Flows

The mean monthly flow in the Hutt River during June was below average.



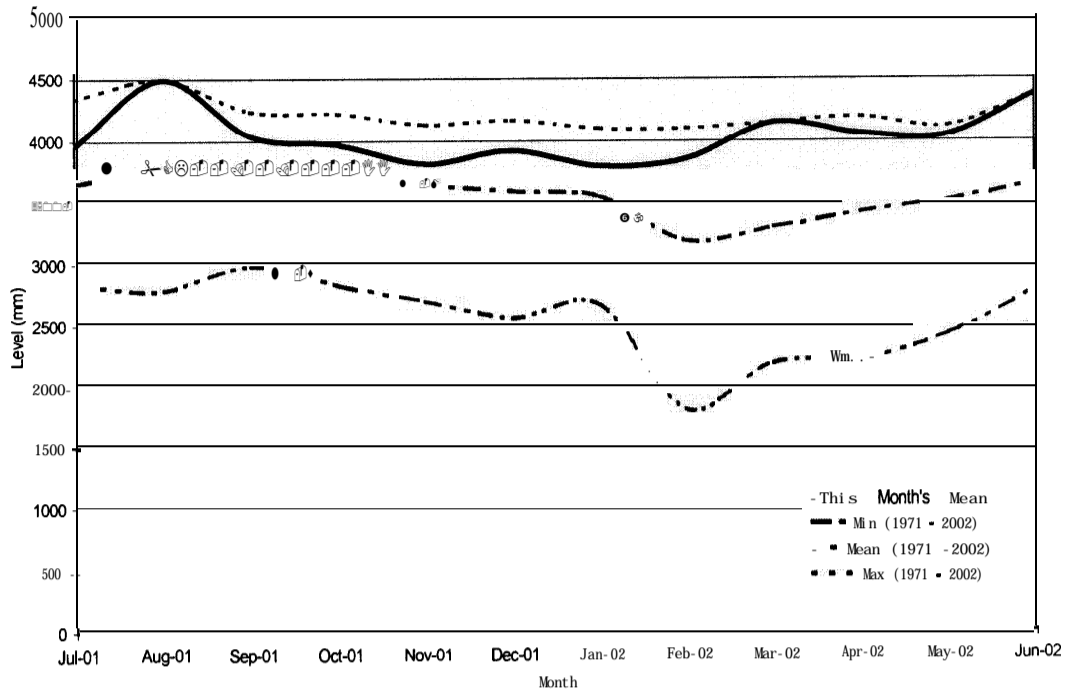
Wainuiomata River Flows

Flows in the Wainuiomata River were below average during June.



Aquifer levels

The water level in the Waiwhetu aquifer was near maximum during June.



4. Production

4.1 Wainuiomata

4.1.1 Quality

There are no quality issues to report.

4.1.2 Safety

There are no accidents or incidents to report.

4.1.3 Operations

There are no items to report.

4.1.4 Plant Tours

13 June 2002 Saint Matthew's School

4.1.5 General

9 An overnight storm on 19/20 June 2002 lifted sections of the main entrance veranda

4.2 Waterloo Water Treatment Plant

4.2.1 Quality

There are no quality issues to report.

4.2.2 Safety

There are no accidents or incidents to report.

4.2.3 Operations

There are no items to report.

4.2.4 Plant Tours

There were no tours during the period.

4.2.5 Projects

➤ Capital Works

- ◆ Work on the extension of the Waterloo car park was completed.

4.3 Gear Island

4.3.1 Quality

There are no quality issues to report.

4.3.2 Safety

There are no accidents or incidents to report.

4.3.3 Operations

There are no items to report.

4.3.4 Plant Tours

There were no tours during the period.

4.3.5 General

- The sodium hypochlorite disinfection plant was decommissioned.

4.4 Te Marua

4.4.1 Quality

There are no quality transgressions to report.

4.4.2 Safety

There are no accidents or incidents to report.

4.4.3 Operations

Date	Problem	Cause
4 June 2002	Filter low level shutdown	Sudden drop in filter levels
14 June 2002	High inlet colour	Increasing river colour
15 June 2002	Lake No. 1 high underdrain turbidity	Heavy rain caused underdrain turbidity to increase
15 June 2002	High treated water turbidity	False alarm - particles in instrument
16 June 2002	Lake No. 1 high underdrain turbidity	Heavy rain caused underdrain turbidity to increase
18 June 2002	High sludge lagoon level	Heavy rain
18 June 2002	Lake No. 1 high underdrain turbidity	Heavy rain caused underdrain turbidity to increase
18 June 2002	Lake No. 1 high underdrain turbidity	Heavy rain caused underdrain turbidity to increase
22 June 2002	High treated water colour	Auto cleaning cycle took longer than usual
23 June 2002	Filter No. 5 turbidity alarm	Turbidity increase after backwash, incorrect instrument flow
26 June 2002	High pump station pH	Dosing adjustment
27 June 2002	Filter No. 3 turbidity alarm (during backwash)	Fluctuation in valve position feed back signal
28 June 2002	Filter No. 5 turbidity alarm	Turbidity increase after backwash, incorrect instrument flow

4.4.4 Plant Tours

12 June	Fault Line Tour	
13 June	Birchville School	85
21 June	Opus C Grade training	6

4.4.5 General

➤ Kaitoke Abstraction (New Consent Conditions)

Low flow commissioning has now been completed.

5. Distribution

5.1 Health and Safety

There was one incident where an employee strained their back.

5.2 Maintenance/Repairs

- A new 400 mm butterfly valve and new pipework were installed for the bypass line in the Ngauranga valve chamber.
- New bearings and seals were installed on the 900 mm line valve in the Rocky Point valve chamber.

5.3 Waterloo Water Treatment Plant

- The car park was compacted and prepared. New kerbing was installed and the new car park sealed.

5.4 Trentham No. 1 Reservoir

- A new control valve and valve chamber was installed on the inlet main.

5.5 Porirua low level Reservoir

- Preliminary work was carried out for the control valve at this reservoir.

5.6 Private Supplies

- All meters for private supplies were read.
- Tests were carried out on backflow preventers for all private supplies.

5.7 Te Marua Filter Gallery

- Work was carried out on the new bypass pipework. A shutdown took place, the centres cut out and were repaired.

6. Health and Safety : Total Injury/Illness/Incident Record

➤ Production

There are no accidents or incidents to report.

➤ Distribution

There was one incident where an employee strained their back.

Water Group Health and Safety Data 2002 - Total Injuries

PRODUCTION (+ 1 OPS ADMIN)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Oec
Hours worked	2,042	2,481	2,600	2,689	3,380	2,626						
Employee numbers	15	16	16	16	17	16						
Injuries	0	0	0	0	0	1						
Days lost	0	0	0	0	0	0						
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	6.25						
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	0	0	0	380.8						
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0						
DISTRIBUTION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Oec
Hours worked	1,565	1,342	1,322	1,353	1,421	1,211						
Employee numbers	9.5	9.5	8.5	8.5	8.5	8.5						
Injuries	0	0	0	1	0	0						
Days lost	0	0	0	0	0	0						
incidence rate (number of incidents per 100 workers)	0	0	0	11.8	0	0						
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	0	739	0	0						
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0						
ENGINEERING CONSULTANCY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Oec
Hours worked	1,576	1,632	1,744	1,772	1,908	1,568						
Employee numbers	11	11	11	11	11	11						
Injuries	0	0	1	0	0	0						
Days lost	0	0	0	0	0	0						
Incidence rate (number of incidents per 100 workers)	0	0	7.1	0	0	0						
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	573.3	0	0	0						
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0						
UTILITY SERVICES SUPPORT	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hours worked	1,136	1,020	1,024	1,064	1,040	876						
Employee numbers	9	9	8	8	8	8						
Injuries	0	0	0	0	0	0						
Days lost	0	0	0	0	0	0						
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0						
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	0	0	0	0						
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0						
LABORATORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Oec
Hours worked	1,207	1,242	1,335	1,364	1,124	1,097						
Employee numbers	10	10	10	10	8	7						
Injuries	1	1	0	0	0	0						
Days lost	0	3	0	0	0	0						
Incidence rate (number of incidents per 100 workers)	10	10	0	0	0	0						
Frequency rate (incidents per 1,000,000 hours exposure)	828.5	797	0	0	0	0						
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	5,471.9						

April = strained back

March = barked shin on protruding pipe

Jan = twisted knee joint whilst collecting samples

Jun = days lost due to incident that occurred in January

STRATEGYANDASSET

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hours worked	632	646	552	680	774	614						
Employee numbers	5	5	5	5	5	5						
Injuries	0	0	0	0	0	0						
Days lost	0	0	0	0	0	0						
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0						
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	0	0	0	0						
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0						

FORESTRY

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hours worked	404	328	497	516	476	396						
Employee numbers	3	3	3	3	3	3						
Injuries	0	0	0	0	0	0						
Days lost	0	0	0	0	0	0						
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0						
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	0	0	0	0						
Severity rate (days lost to injury per 1,000,000 hours worked)	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	8,561	8,689	17,250	9,074	26,324	9,438	35,762	10,122	45,884	8,387	54,271												
Employee numbers	63	64	63	62	63	62	63	61	62	59	62												
Injuries	1	0	1	1	2	1	3	0	3	1	4												
Days lost	0	0	0	0	0	0	0	0	0	6	6												
Incidence rate (number of incidents per 100 workers)	2	0	0.8	1.6	1.1	2	1.2	0	1.0	2	1.1												
Frequency rate (incidents per 1,000,000 hours exposure)	11.7	0	5.8	11.0	7.6	10.6	8.4	0	6.5	11.9	7.4												
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	7.15	11.1												

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

Strategy and Asset Group

June 2002

Strategy and Asset Group

Review of Operations for the Period Ended 30 June 2002

1. Items of Note

- The agreement to allow UnitedNetworks to install a fibre optic cable in The Water Group's communication duct between Thomdon and Petone has been executed. UnitedNetworks installed the cable a few days after the agreement was approved.
- Continued delays by the Contractor completing the refurbishment of one of the water mains along the Petone foreshore is of concern. A Contract that was to be completed in May will now be completed in August. Hutt City Council is being kept informed.
- Total water sales volume for the three months ended 30 June were very similar to the quantity sold for the same period last year. Upper Hutt City Council was having problems with unaccounted for water last year. A decrease in sales volume to the city would tend to indicate these problems have been rectified. Upper Hutt City Council's reduction has equated to small increases in the other cities.
- There are about 12 small private supplies off the wholesale water supply system. A full review of the costs of these supplies is taking place at present. It is expected a report will be tabled at the next Utility Services Committee meeting.

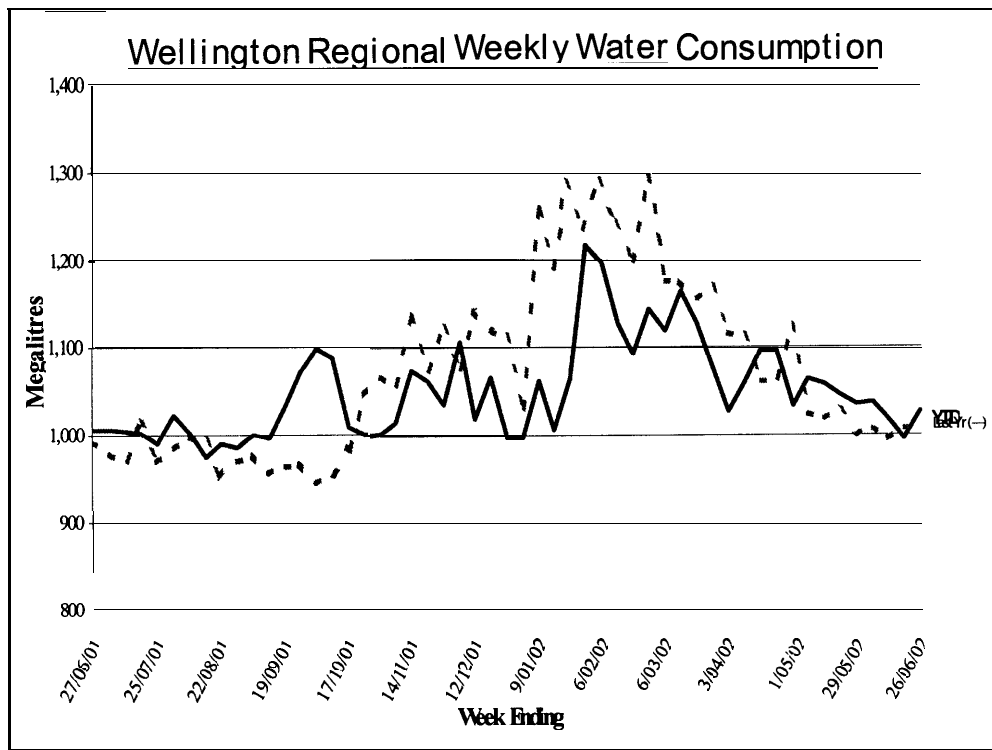
2. Sales Volume

Graphs outlining sales volumes are on page 15.

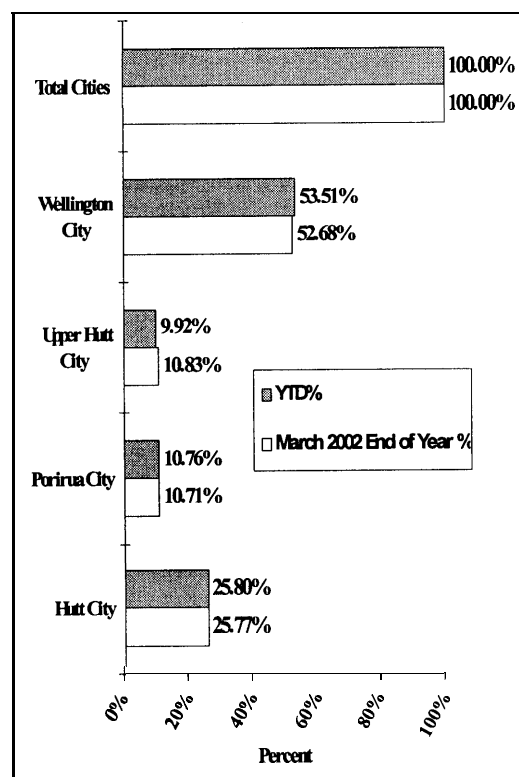
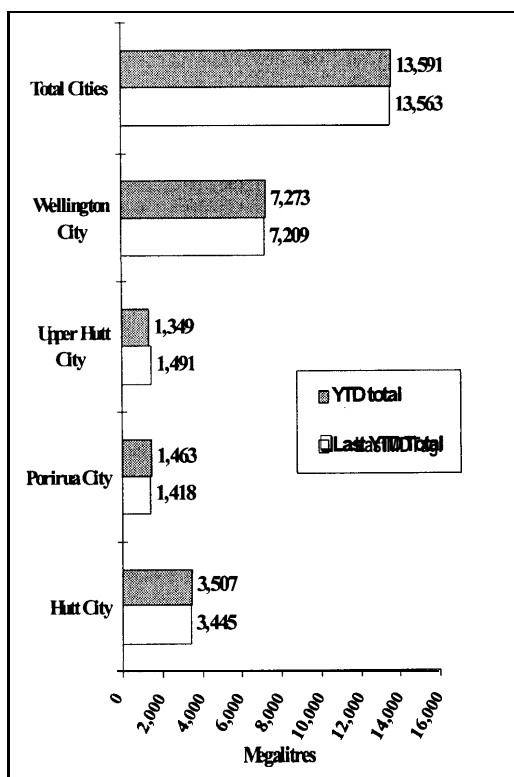
3. Asset Management

- Depreciation of Wholesale Water infrastructure assets has been run up to 29 June and reported to the Finance Department. Depreciation for 30 June will be run following the capitalisation of completed projects. Excellent agreement with the depreciation estimates used in the monthly accounts during the year was obtained. The difficulties with implementing asset disposal have been solved but the solution has yet to be implemented.
- A review of the June 1998 Asset Management Plan has been commenced but current updating is limited to financial forward planning. Priority is being given to addressing items on the improvement programme contained in the 1998 Asset Management Plan and good progress is being made.
- The 2001/2 Capital Works Programme has been completed. Projected expenditure, as forecast at 31 May, was \$3.4 million against a budget of \$3.9 million. The final full year expenditure is not yet known.

Water Sold Over the last 12 Months



Water Sold from 1 April 2002 to 26 June 2002



Savings have resulted from good tender prices, the indefinite deferral of some projects, and delays to other projects. The most substantial project, lining of the Rahui Reservoir supply main (part of the old Orongorongo/Karori pipeline) is approximately 80 percent complete and expected to be completed by late July. The majority of the cost will be brought to charge in the 2001/2 financial year. New pumps have been delivered for the Johnsonville Pumping Station and a new switchboard is being manufactured.

- Noise insulation work at the Moores Valley Road Pumping Station has been completed and a range of minor improvements and replacements has been implemented at the treatment plants.
- Final plans for the transfer of Karori Reservoir land to the Wellington City Council have been received and found to be in order. Following final administrative clearance, the land will be formally transferred to Wellington City Council.
- Issues associated with the Council's application to take water from the Moera aquifer are being worked through with IBM, whose fire protection system may be affected by the proposal.
- A detailed condition assessment of older pipelines has shown that the steel main between the Orongorongo Tunnel and the Wainuiomata Water Treatment Plant will have to be replaced quite soon; parts of it immediately. A condition assessment of the 1884 vintage cast iron main through Wainuiomata will be undertaken in the next financial year.
- Updating of the Sustainable Yield Model (SYM), our primary strategic planning tool, is now complete. The Consultant has been asked to provide a proposal to achieve better matching with the updated Resource Investigation Hutt Aquifer Model (HAM2). The SYM model predicts groundwater levels, but currently gives more conservative (lower) levels than the more complex HAM2 model.
- Planning is under way to relocate the branch main to the Plimmerton Reservoir, which will be affected by new State Highway 1 roading work at Plimmerton. Transit New Zealand has agreed to pay 100 percent of the cost of this work, as the main is on the Plimmerton Reserve rather than the highway itself. Work on the new duplicate Paremata Bridge is about to start and a temporary diversion of the Pukerua Bay main will be required in the early stages of the Contract. On completion of the new bridge the main will be transferred to it, providing enhanced seismic security for the Paremata Harbour crossing. The normal 50/50 cost sharing arrangement will apply to this work.
- A consultant's report assessing the risk and recovery time associated with seismically induced failure of the Kaitoke/Karori pipeline where it traverses the side of a steep potentially unstable gully at Haywards indicates that relocating this main may be warranted. The relocation would ideally be

closely linked with the proposed realignment of State Highway 58 and the likely timing of this work is currently being established.

- Calibration of the new Network Hydraulic Model of the distribution network has been completed. Once the calibration results have been incorporated into the model it will be capable of undertaking detailed simulations of flow and pressure through our complex network of pipes, pumps and reservoirs.
- Training of volunteers to assist with guiding visitors in the Wainuiomata/Orongorongo Catchments has been completed. These volunteer guides will be progressively used to assist with guiding visitors. Given the time of year and the weather, activity in the catchments has been limited. Landcare Research scientists have completed trials in the Wainuiomata Catchment using non-toxic possum bait aimed at improving possum population estimates. To evaluate their trial, they trapped to extinction and found a surprisingly high number of possums.

4. Quality Assurance

- A detailed report has been forwarded to the Hutt Valley District Health Board documenting the level of compliance of the treatment plants with the microbiological requirements of the *Drinking- Water Standards for New Zealand*. Te Marua, Waterloo and Gear Island Water Treatment Plants fully comply. Wainuiomata Water Treatment Plant still has problems with small turbidity spikes. Efforts are continuing to improve the performance of the Wainuiomata Water Treatment Plant and improve the C grading. A dry polymer system that will improve performance and reduce cost is currently being commissioned.
- Work has begun on drafting Public Health Risk Management Plans required by the Ministry of Health. It is expected that new health legislation 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.
- Comments have been made on a draft of further changes, corrections and clarifications to the *Drinking- Water Standards for New Zealand 2000*.

5. Environmental

- A plan and cost estimate for a wheel wash at the entrance to the Wainuiomata/Orongorongo Catchment is under preparation. The purpose of the wheel wash is to minimise infestation of the catchment by exotic weeds.
- Staff at the Massey University Institute of Natural Resources have been commissioned to undertake two projects - a desktop study of factors affecting fish numbers in the Hutt River, and a study of ways to enhance the native fish population upstream of the Orongorongo intake.

- The Environment Division has issued certificates of full compliance with the resource consents granted to abstract water from the Hutt River at Kaitoke, Wainuiomata River and Orongorongo River.

6. Marketing

- A proposal from NFO Research for qualitative research regarding water conservation attitudes and garden watering activity has been accepted. The proposal was in response to our brief. The research discussion guide will be finalised and the research conducted during July, with results available in mid-August. The purpose of the research is to guide the development of our summer water conservation advertising and promotion
- Discussion continued, through our advertising and design agency, with Television New Zealand regarding compensation for the probable under-performance of our television advertising during summer 2001/2. Further clarification of the detail of Television New Zealand's offer of compensation has been received. The offer of additional free airtime is not our preferred option and a counter offer has been conveyed to Television New Zealand.
- An educational resources consultant has been engaged to review water treatment plant tour content, develop the content and hand-outs for a primary and intermediate school audience, and train our treatment plant staff in presentation of the material. Our goal is to attract more school groups to visit a water treatment plant by making it easier for teachers to recognise how the visits contribute to meeting the learning targets set out in the school curriculum. The tour content and handouts will also promote learning regarding water quality, water use and conservation. Better understanding of these issues in the community will contribute to meeting our water supply goals.
- An educational resources consultant reviewed the design of a mimic board for the reception area at Wainuiomata Water Treatment Plant and suggestions were made to improve some of the visual aspects of the diagram. These changes are being incorporated.
- Planning has continued for *The Water Group Report of Business Activity* for the 2001/2 financial year. Design and a production time-line have been discussed with our designers and the content researched. Reporting will reflect improved triple bottom line information gathering and reporting of water supply activities over the last 12 months.
- Arrangements were made for three visits to water treatment plants involving some 160 visitors.
- A media release, *Water levy frozen as costs rise*, was prepared and forwarded to Communications for release. To date the story has been reported in *The Evening Post*, *Hutt News* and *Kapi-Mana News*. The

release has also been sent to the New Zealand Water and Waste Association's magazine.

- A member of the public has approached Utility Services about painting an image on the top of our Ngauranga water reservoir. Consideration of this request resulted in a briefing paper being prepared for the executive management team.

7. Projects Undertaken by Engineering **Consultancy** for Strategy and Asset

➤ Orongorongo River Intake

The extent of the proposed remedial works on Orongorongo River intake has been confirmed. Preparation of detailed drawings of the work will proceed in July 2002.

➤ Wainuiomata/Orongorongo Catchment Wheel Wash

Detailed drawings for construction of a vehicle wheel wash at the entrance to the catchment area are being prepared.

➤ Stuart **Macaskill Lakes** Emergency **Action Plan**

The *Stuart Macaskill Lakes Emergency Action Plan* has been reviewed and a draft revision prepared.

➤ Fire Protection at Wainuiomata Water Treatment Plant

Alternative fire protection systems are being investigated to avoid having to regularly gain access to the sensors located on the ceiling in the filter gallery.

➤ Waterloo Water Treatment Plant Vibration and Noise

An assessment is being made to determine whether further work is required to ensure that a fatigue failure of the motor hall floor does not occur.

➤ Garaging for Waterloo Wellfield Generators

A report assessing options for garaging the mobile generators for the Waterloo wellfield has been prepared.

➤ Gear Island Water Treatment Plant Roof Fixings

The existing securing system for the chemical building roof trusses and the control reservoir roof does not meet current earthquake loading standards.

A Contract has been awarded and work is nearing completion for installing additional fixings on the trusses and roof.

➤ **Gear Island Wellfield Scour**

A proposal for installing a large scour on the Gear Island wellfield collector main has been prepared.

➤ **Refurbishment of the OK Main, Petone**

Refurbishment of the OK main between Hutt Park and Korokoro is approximately 80 percent complete. The Contractor's progress has slipped behind their revised programme. Slip lining the main with a 400 mm PE pipe is expected to be completed by the end of July 2002 and the pipeline tested and recommissioned in early August.

➤ **Paremata Bridge, State Highway 1**

Transit New Zealand has awarded a Contract to construct a new bridge at Paremata. The 300 mm pipeline supplying water to Plimmerton and Pukerua Bay will be relocated onto this new bridge. Design of the pipeline for the new bridge is proceeding. A temporary diversion of the existing pipe has been designed to allow the bridge to be constructed. Work has started on-site.

➤ **Stokes Valley Branch Main**

An assessment has been made of the strength and remaining operational life of the asbestos cement section of this branch main. The main has a remaining serviceable life of approximately 30 years at the current working pressure.

➤ **Johnsonville Pumping Station Switchboard and Pumpsets**

Replacement of the Johnsonville Pumping Station switchboard and pumpsets is progressing. The new switchboard has been delivered to the Site and is being installed. The replacement pumpsets have also been delivered.

➤ **Warwick Street Pumping Station**

A report on the condition of the Warwick Street Pumping Station switchboard and pumpsets is being finalised. Replacement of the switchboard is proposed.

➤ **Karori Pumping Station**

A report on the condition of the Karori Pumping Station switchboard and

pumpsets is being finalised. Replacement of the switchboard and the pumpsets is proposed.

➤ **Reservoir Float Valve Replacement**

New inlet control valves have been installed at **Trentham No. 1** and **Porirua Low Level No. 1 Reservoirs**.

➤ **Moores Valley Pumping Station Noise Reduction**

Acoustic seals have been installed at the **Moores Valley Pumping Station**. The noise emission from the pumps at the adjacent residential boundary now complies with the **Hutt City Council District Plan**.

➤ **Pipe Holding Down Straps in Tunnels and Tunnel Access**

The installation of pipe securing straps in the **Kaitoke pipeline tunnels** is almost complete. This work includes the construction of concrete access chambers to provide safe access into the tunnels.

Engineering Consultancy Group

June 2002

Engineering Consultancy Group Review of Operations for the Period Ended 30 June 2002

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 underway are detailed in the following sections.

3.2 Wakefield Street

Design work and draft Contract Documents have been completed for a Contract to replace a water main in Wakefield Street from Courtenay Place to Cuba Street. Replacement of the pipeline along this busy city street will be another challenging Contract.

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 Consultant has prepared a draft design report for siting the reservoir in Carter Park.

3.4 Southern Suburbs Reservoir

Wellington City Council has indicated a preference for the site in Mount Albert Park. This site would have a lower overall cost than the Southgate Park site. The Council will confirm the site at a meeting in July.

3.5 Kelburn Reservoir

This reservoir will replace two existing reservoirs that are adjacent to the Karori Wildlife Sanctuary. The Contract has been awarded and excellent progress has

been made. The south chamber of the reservoir is almost complete. After curing of the concrete and sealants the south chamber will be tested, disinfected and commissioned over the next two months.

3.6 **Onslow Reservoir**

There are two reservoirs on the **Onslow** site. The proposal is that the rectangular western reservoir be demolished and replaced with a larger reservoir, so that the water storage deficiency in the zone can be rectified. The design consultant has prepared the resource consent application and a draft design report.

4. **Miscellaneous Projects**

4.1 **Emergency Water Supply**

The consultant engaged for this project has had detailed discussions with water supply staff of the five councils and has prepared a draft report. Wellington Regional Council staff members are providing technical input to the project. The final report will be produced after *Operation Phoenix*, to take account of the outcomes of this exercise.

4.2 **Rimutaka Incline Summit - Site Remediation**

A Contract was prepared, awarded and administered for containing and sealing an abandoned railway dump site at the summit of the Rimutaka Incline. The Resource Investigations Section commissioned this work.

Laboratory Services

June 2002

laboratory Services Department Review of Operations for the Period Ended 30 June 2002

1. Items of Note

- 9 End of year invoices are expected to make inroads into the operating surplus for this period. However, the final figure for the year will remain ahead of budget.
- 9 Drawings and Specifications for the Oxford Terrace laboratory fit-out were completed and tenders let to prospective service providers on 13 June, with a closing date of 4 July.
- 9 With approval to proceed with the purchase of a new TOC/TN analyser, shortlisted suppliers were given the opportunity to refresh their respective quotations. These will be received for evaluation, with final section expected in early July.
- 9 Unfortunately we were unsuccessful with our tender for the Porirua City Council water testing contract this year. We were beaten on a technical aspect and not price.
- 9 With reference to methods of analysis for microbiological compliance with the *Drinking- Water Standards for New Zealand 2000*, we are seeking accreditation for the *E. coli* referee method. We have completed laboratory trials and will submit the necessary documentation when completed for IANZ assessment.

2. Business Summary

2.1 Quality

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

2.2 Health and Safety

A staff member underwent a knee operation for an injury incurred while sample collecting earlier in the year.

Plantation Forestry

June 2002

Plantation Forestry Department Review of Operations for the Period Ended 30 June 2002

1. log Harvest Contract

Volumes for June recovered from the drop in May but could not match those achieved in March and April. This reduction in tonnage was compensated for by an excellent return per tonne at \$48.94 before road costs. This is the highest we have achieved in recent years and shows the returns available from properly tended trees.

The “new” hauler is now fully operational and is proving most suitable for the broken country in the Puketiro Forests.

We have put a proposal to an adjoining landowner for the use of their land as an access route to Paekakariki Hill Road. If the proposal is accepted, the cost of road construction can be funded from the reduction in cartage rates. We also have a proposal to approach another landowner for access to harvest a block of 12,000 tonnes which is isolated in transport terms from the balance of the block.

Planning has commenced for the access roads into the next two blocks scheduled for harvest. It is hoped to complete the roads in early spring, with harvest to commence in summer.

There has been no progress on the matter of permanent communications in the area.

The by-grade output for June was:

Grade	Tonnes	%
Pruned Domestic	736.98	25.4
Pruned Export	00	0
Partial Pruned	105.76	3.65
S/A Grade	205.19	7.07
L Grade	562.57	19.39
R Grade	163.38	5.63
K Sawlog	230.34	7.49
K Rough	496.62	17.12
Pulp	295.65	10.19
O/S Pulp	105.01	3.62
Xoort Pulp	0	0
Other	0	0
Total	2901.5	

2. Silviculture Contracts

The Contractors have continued to assist with road maintenance and “daylighting” and thus have not spent a full month on silviculture.

Ten hectares were completed in July. To date a total of 69 hectares have been completed out of a total of 119.

Tenders have been awarded for the 2002/3 financial year silviculture programme.

Despite some initial interest, only two tenders were received, both from long-term operators who have worked for Council for a number of years.

3. Plantation Forestry Operations

The current year’s planting commenced in late June and will continue while ground conditions are suitable. Both rangers have been fully occupied with contract supervision and directing the many road maintenance projects caused by the extremely wet weather.

The manager has concentrated on future road alignments and negotiating the ongoing harvest timetable to ensure sufficient work is available and to ensure an acceptable harvest programme.

4. Forest Access

Access to all areas, except Maungakotukutuku, remains good.

The last month has brought high rainfall and, as a consequence, many problems with roads. The problems do not manifest themselves while it is raining but emerge as the road dries and the mud adopts the consistency of Plasticine. We have had to assist trucks on a number of occasions and have closed the road to trucks for half days on two or three days. We have been fortunate that the closures have all been followed by overnight rain that reinstated access.

In order to put these problems in perspective, the route from the skid site to the front gate is 24 km. By far the majority of the route has remained passable at all times. The problem areas are usually on comers with an adverse loaded grade and are caused by mud being released from the base of the road as the rocks shatter under load and the water causes the dirt to be pumped to the surface. We have spent some time trying to locate better quality rock for these susceptible places and have now found sites in Puketiro and Valley View. We hope this better quality rock and the use of geotextile cloth will enable a permanent “fix” for these spots.

5. Market Trends

We have not received a market report from Rayonier this month but, from

discussions, the present market is driven by the following factors:

- Export prices are steady or increasing but the effect is being undermined by the stronger dollar.
- Most domestic grades have increased for the month by between \$2.00 and \$7.50 per tonne.
- Domestic demand remains very high.
- There is a world surplus of pulp and we can expect pressure on both price and demand in the near future.
- As a consequence of the pulp situation, we are trying to market a rough sawlog to absorb some of the pulp product.