Water Supply April/May 2001

Operations Group April/May 2001

Operations Group Review of Operations for the Period Ended 31 May 2001

1. Items of Note

A relatively quiet period, which has only accentuated the ongoing difficulties associated with the pending decision in respect of water integration.

2. Water Quality

A total of 562 samples from trunk mains were tested for coliform organisms. Four of these samples tested positive.

A total of 146 samples of treated water from treatment plants were tested for faecal coliforms. None of these samples tested positive.

Secchi disc water clarity in the Te Marua north lake varied between 2.9 m and 4.2 m, and in the south lake between 2.4 m and 4.6 m. These are considered satisfactory.

The dominant phytoplankton were as follows:

North Lake: Oscillatoria, Asterionella, Staurastrum

South Lake: Asterionella, Oscillatoria, Staurastrum

Oscillatoria is a filter clogging algae when present in high concentrations.

Asterionella and Peridium produce fishy odours.

Synedra produces a musty smell and slick tongue sensation when abundant.

Cosmarium and Staurastrum produces a grassy smell when abundant.

Dissolved oxygen (8.8-11.0 mg/L) was satisfactory.

pH values were satisfactory (7.2-7.6).

Giardia and Cryptosporidium results were as follows:

Te Marua

Lakes) No Giardia

) No Cryptosporidium

Intake) Low Giardia

) No Cryptosporidium

Treated Water) No Giardia

) No Cryptosporidium

Wainuiomata

Treated Water) No Giardia

) No Cryptosporidium

Lower George Creek and) Low Giardia

George Creek south arm) Low Cryptosporidium

combined

Orongorongo and Big Huia

) Low Giardia

Intake combined

) No Cryptosporidium

Wainuiomata intake) Low Giardia

) Low Cryptosporidium

Guidelines Criteria

0-10 oocysts = low 10-50 oocysts = medium >50 oocysts = high

3. Supply Situation

The bimonthly seasonal forecast for April and May 2001 issued by the Meteorological Service is as follows:

For Wellington:

Rain: Returning to normal after several dry months

Wind: About normal
Temperature: Near normal
Sunshine: About normal

Specials: Increasing chance of showery weather

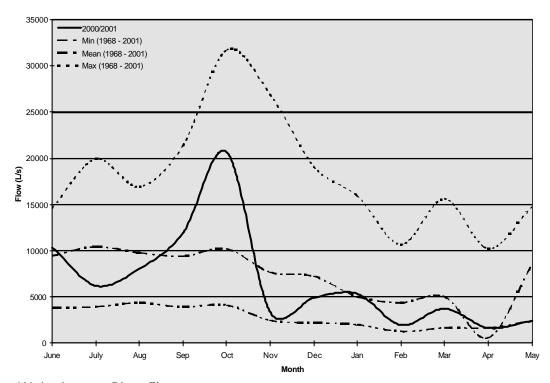
Sunshine: About to above normal

Confidence: Low to moderate

Dry periods are becoming shorter as high pressure areas are becoming less dominant. By June, cold fronts are expected to be arriving at the rate of about once a week and able to deliver normal amounts of rainfall. Thanks to some residual warmth in sea and soil temperature, some late autumn pasture growth is still possible. There is a small chance of a heavy dump of rain being brought here by a low pressure system deepening in the Tasman Sea.

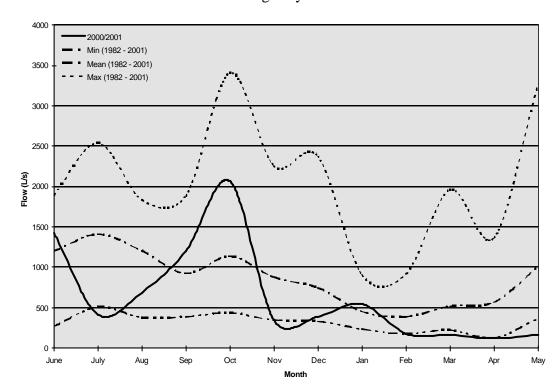
Hutt River Flows

The mean monthly flow in the Hutt River during May was below average and near the minimum.



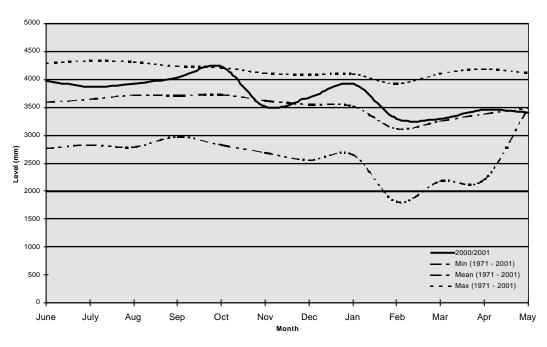
Wainuiomata River Flows

Flow in the Wainuiomata River during May has reduced to below minimum level.



Aquifer Levels

The water level in the Waiwhetu aquifer during May was about average.



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

1 May: The plant was turned off because there was not enough

river water to maintain minimum plant flow.

24 May: The slam-shut valve spring broke. This was a large spring

rated at 6 ton enclosed inside a canister. This spring closes the slam-shut valve. The plant was taken off line, as it would have been impossible to shut down the plant if a

transgression had occurred during normal operation.

The slam-shut valve has now been modified to operate hydraulically, as it was impossible to readily source replacements.

The modifications can now be serviced locally.

4.1.4 Projects

- Capital Works
 - ♦ 140 m of Orongorongo pipeline replacement
 - ♦ Slam-shut scour valve
- Operational Projects
 - ♦ Lightning protection
 - ♦ More carbon dioxide leak detectors installed in areas of risk

4..1.5 Plant Tours

25 May

Various Asian countries' MPs, Mayors, Council Chief
Executive Officers and key personnel from NZWWA

4.1.6 General

- There is a lot of water available in the Orongorongo Catchment but abstraction is limited by the current consent.
- The Wainuiomata Catchment is still very much in a drought situation, hence plant flows have been low for this period.
- 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

The bulk of the Region's water has come from this plant for this period.

4.2.4 Plant Tours

There were no plant tours during the period.

4.2.5 Projects

- Capital Works
 - The outside of the building was painted.
- Operational Projects
 - ♦ Manufacturing the Naenae/Gracefield motor control panel
 - ♦ Lightning protection
 - ♦ Hot backup PLC installation

4.2.5 General

The Willoughby fixed speed well pump was removed from service on 17 May. The pump will be overhauled and the control panel has been upgraded.

4.3 Gear Island

4.3.1 Quality

Gear Island was used a couple of times to supplement supply during planned shutdowns of pipelines.

4.3.2 Safety

There are no accidents or incidents to report.

4.3.3 Operations

The HFA dosing plant was commissioned mid-April.

4.3.4 Plant Tours

There were no tours during the period.

4.3.5 Projects

- Capital Works
 - ♦ Work has commenced on the construction of the building to house the chlorination equipment
 - ♦ The outside of the buildings was painted

- Overflow switches were fitted to the chemical tanks
- Operational Projects
 - Erection of the fence has been completed
 - ♦ Lightning protection has been installed

4.3.6 General

An electrical engineer has been engaged to resolve a harmonic problem that intermittently causes key pieces of equipment to fail. Until this is resolved the plant discharge is limited to use of the fixed speed AC pump.

4.4 Te Marua

4.4.1 Quality

Date	Transgression	Cause
1 April 2001	Filter outlet turbidity spikes	Problems with polymer dosing system
4 April 2001	Filter outlet turbidity spikes	Problems with polymer dosing system
20 April 2001	Low treated water pH	Faulty caustic dosing pump
25 May 2001	Low fluoride	Low inlet flow to dosing system

4.4.2 Safety

There was one non-injury incident during the period. The glass cover on a new light fitting exploded sending fine fragments of glass over a wide area. Staff members were in the vicinity at the time of the incident but no injury occurred.

4.4.3 Operations

Date	Problem	Cause
2 April 2001	Filter No. 5 sequence fault	Blown fuse in Rotork valve
3 April 2001	High treated water pH alarm	Sudden flow change through plant
14 April 2001	Filter No. 2 sequence fault	High level in filter
20 April 2001	Fire alarm monitoring fault	Telecom line fault
23 April 2001	Raw water colour monitor failed	Algae blockage on inlet
25 April 2001	Raw water colour monitor failed	Algae blockage on inlet
26 April 2001	Low treated water pH alarm	Sudden flow change through plant
30 April 2001	Filter No. 5 sequence fault	Position switch fault
9 May 2001	Low treated water pH alarm	Dosing pump fault
11 May 2001	High treated water turbidity alarm	Bio film passing through instrument (false alarm)
13 May 2001	High treated water turbidity alarm	Bio film passing through instrument (false alarm)
19 May 2001	High treated water turbidity alarm	Bio film passing through instrument (false alarm)

Date	Problem	Cause					
24 May 2001	Low rapid mix pH	Lime feeder tripped (mains power fluctuations)					
26 May 2001	Filter No. 1 sequence fault	Backwash penstock failed to close within allotted time					
27 May 2001	Filter No. 1 sequence fault	Backwash penstock failed to close within allotted time					
28 May 2001	Fire alarm monitoring fault	Telecom line fault					

4.4.4 Plant Tours

2 April Tawa School (20)

4.4.5 General

Drinking-Water Standards 2001

Off-line testing and simulation of the turbidity control software has been completed. Installation and final commissioning will take place in June.

Kaitoke Shutdown for Pipeline and Tunnel Repairs

This work began on 18 April 2001 and was completed on 16 May 2001.

The new control philosophy developed to allow Te Marua to run without the tunnel level signal has proved very successful and will be permanently implemented as a backup to normal tunnel control.

➤ Inlet Valve Slam Shut Modifications

The need to run Te Marua normally, without the No. 2 Tunnel in service, required the closing operation of the main water treatment plant inlet valves to be modified. A slower, multi-stage closing operation was required to reduce the risk of damage to pipework in the event of an inlet valve slam-shut.

Pneumatic control equipment was installed and successfully commissioned.

➤ Lake Storage

During the Kaitoke shutdown Te Marua ran continuously on lake water for 29 days. As a result, lake storage has been significantly reduced. Every effort will be made to maximise lake filling. However, at this time of year with changeable river conditions it may take several months before previously high lake levels can be restored.

5. Distribution

5.1 Health and Safety

One employee suffered a minor sprain - no time off work.

5.2 Pipeline Section

5.2.1 Maintenance

Maintenance was carried out as follows:

- Mark Avenue was shut down and the meter removed.
- Plimmerton No. 1, Whitby branch and Messines Road were shut down and the orifice plate removed from each.
- Paremata No. 1 was shut down and the globe and line valves removed.
- Haywards Substation B was shut down. The meter and globe valve were removed and a new control valve was installed.
- The Gracefield branch was shut down and the dall tube removed.
- The Randwick to Waterloo 750 mm main was shut down and the annubar removed.
- A new inlet valve was installed at Naenae Reservoir.
- The Macalister Park to Thorndon 800 mm main was shut down and a broken single air valve was repaired.
- A scour valve exercise was carried out on the Hutt main from Te Marua to Karori.
- Tunnel Grove Valve Chamber. The 1050 mm main from the Wainuiomata Tunnel to the Randwick valve chamber was shut down. All redundant pipework, dead legs and valves were removed.

5.2.2 1050 mm Main, Hutt Road

- A night shutdown was carried out on the 1050 mm main to service the scours and air valves. New single air valves and a new 400 mm branch valve were installed and a welding repair was carried out on a leak.
- A second night shutdown was made on the 1050 mm main to finish servicing of scours and air valves, as well as to carry out another welding repair and video inspection of the main.

5.3 Flectrical Section

5.3.1 Johnsonville Pump No. 3

The motor is has been repaired by Recon Ltd, reinstalled and returned to service.

5.3.2 Turbidity Meters

New turbidity meters have been installed at Thorndon, Karori and Haywards Pumping Stations to monitor the quality of water along the distribution mains.

5.3.4 Karori Pumping Station

The Kelburn Pump No. 1 motor has been removed and is being refurbished.

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

Production

There was one non-injury incident during the period. The glass cover on a new light fitting exploded sending fine fragments of glass over a wide area. Staff members were in the vicinity at the time of the incident but no injury occurred.

Distribution

One staff member strained the lower back from lifting. Another staff member jarred their right wrist using a big hammer.

Network

There were two other minor incidents during April. An employee twisted his knee while going up some steps. His doctor has approved three days off accident compensation from 2 May.

Another employee has reported a recurring back injury (no time off).

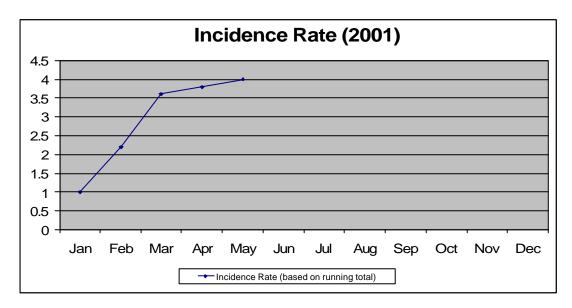
There were no accidents or incidents reported during May. The two staff members previously on accident compensation returned to work during May.

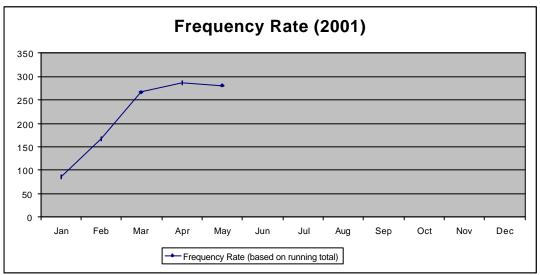
Water Group Health and Safety Data 2001 : Total Injuries

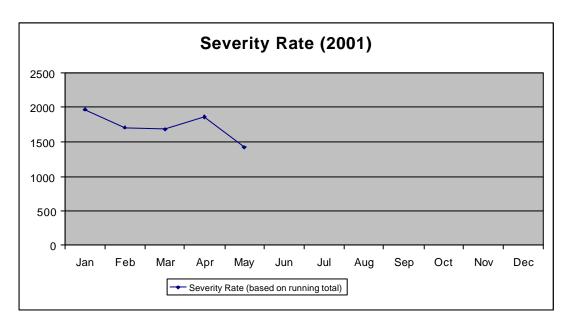
PRODUCTION (+ 1 OPS ADMIN) Hours worked Employee numbers Injuries Days lost Incidence rate (number of injuries per 100 workers) Frequency rate (injuries per 1,000,000 hours exposure)	16 0 0 0	16 0 0 0	2 0 13 815	15 1 0 6.6 518	May 2,660 15 0 0 0	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mar = breathed in chlorine fumes whilst opening HTH container Mar = Overalls caught on mixer shaft Apr = Near Miss - exploding glass from light fitting - TM Control Room
Severity rate (days lost to injury per 1,000,000 hours worked) DISTRIBUTION Hours worked Employee numbers Injuries Days lost Incidence rate (number of injuries per 100 workers) Frequency rate (injuries per 1,000,000 hours exposure) Severity rate (days lost to injury per 1,000,000 hours	Jan 1,640 11.5 0 0	Feb 1,484 11.5 1 0 8.6 674	Mar 1,761 11.5 1 0 8.6 568	0	May 2,105 11.5 2	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Feb = welding up pipe & received burn by arc splatter Mar = minor sprain May = lower back strain from lifting & jarred right wrist using big hammer
worked) NETWORK Hours worked Employee numbers Injuries Days lost Incidence rate (number of injuries per 100 workers) Frequency rate (injuries per 1,000,000 hours exposure) Severity rate (days lost to injury per 1,000,000 hours worked)	24 0 20 0	24 0 15 0	24 2 22 8.3	Apr 2,962 23 3 21 13 1013 7,090	May 3,880 22 0 0 0	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan/Feb /Mar = Days lost due to worker on ACC. Incident recorded in Dec 00 Mar = Dislocated finger Mar = Body stress to trunk Apr = twisting back, knee injury, damage to gas pipe (near miss) Apr = 18 days lost due to worker on ACC. Incident recorded in Dec 00
ENGINEERING CONSULTANCY Hours worked Employee numbers Injuries Days lost Incidence rate (number of injuries per 100 workers) Frequency rate (injuries per 1,000,000 hours exposure) Severity rate (days lost to injury per 1,000,000 hours worked)	15 1 0 6.6 571	15 1 0 6.6 551 0	0 0 0 0	15 0 0 0 0	15 2 0 13 733 0	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan = Tree branch struck right elbow Feb = Tripped on road marker May = strained back whilst shutting valve May = head on crash aggravated an ankle strain
UTILITY SERVCIES SUPPORT Hours worked Employee numbers Injuries Days lost Incidence rate (number of injuries per 100 workers) Frequency rate (injuries per 1,000,000 hours exposure) Severity rate (days lost to injury per 1,000,000 hours worked)	8 0 0 0	8 0 0 0 0	8 1 0 12.5 829	Apr 1,116 8 0 0 0 0	8 0 0 0 0	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mar = punctured elbow with staple whilst leaning on pile of documents
LABORATORY Hours worked Employee numbers Injuries	Jan 1,057 10 0	10	Mar 1,136 10 0	Apr 918 10 0	May 1,209 10 0	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan/Feb = days lost due to possible chemical exposure during acid washing Feb = cut thumb on sharp metal in sink Mar = days lost due to possible chemical exposure during acid washing

Days lost	3	3	0	7	0								Apr = days lost due to possible chemical exposure during acid washing
Incidence rate (number of injuries per 100 workers)	U	10	U	U	U								J
Frequency rate (injuries per 1,000,000 hours exposure)	0	930	0	0	0								
Severity rate (days lost to injury per 1,000,000 hours worked)	2,838	2,791	0	7,625	0								
STRATEGY AND ASSET	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	480	5/6	620	504	848								
Employee numbers	4	4	4	4	5								
Injuries	U	U	U	U	U								
Days lost	0	0	0	0	0								
Incidence rate (number of injuries per 100 workers)	0	0	0	0	0								
Frequency rate (injuries per 1,000,000 hours exposure)	0	0	0	0	0								
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0								
FORESTRY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	248	374	415	338	434								
Employee numbers	3	3	3	3	3								
Injuries	0	0	0	0	0								Incidence rate = (number of injuries/number of employees) x 100
Days lost	0	0	0	0	0								Frequency rate = (number of injuries/person hours worked) x 1,000,000
Incidence rate (number of injuries per 100 workers)	0	0	0	0	0								Severity rate = (days lost/person hours worked) x 1,000,000
Frequency rate (injuries per 1,000,000 hours exposure)	Ö		Ö	Ö	Ö								2211111 (22)2 122 F212211 10410 1101104) K 1/000/000
Severity rate (days lost to injury per 1,000,000 hours worked)	0		0	0	0								

Utility Services Division Combined	Jan	Feb	Running Total from 1/1/01	Mar	Running Total from 1/1/01	Apr	Running Total from 1/1/01	May	Running Total from 1/1/01	Jun	Running Total from 1/1/01	Jul	Running Total from 1/1/01	Aug	Running Total from 1/1/01	Sep	Running Total from 1/1/01	Oct	Running Total from 1/1/01	Nov	Running Total from 1/1/01	Dec	Running 12 month Total
Hours worked	11,67	12,28	23,960	13,523	37,483	11,307	48,789	15,20	63,992														
Employee numbers	8 92	1 92	92	91	92	90	91	3 90	91														
Injuries	1	3	4	6	10	4	14	4	าช					i		i					i		Ī
Days lost	23	18	41	22	63	28	91	U	91														
Incidence rate (number of injuries per 100 workers)	1	3	2.2	/	3.6	4	3.8	4	4.0														
Frequency rate (injuries per 1,000,000 hours	86	244	167	444	267	354	287	263	281														
exposure) Severity rate (days lost to injury per 1,000,000 hours worked)	1,969	1,466	1,711	1,627	1,861	2,476	T,865	U	1,422														







Operations Network Review of Operations for the Period Ended 31 May 2001

1. Items of Note

- Four main bursts were attended to and repaired within the requisite timeframe during April. During May there were three major bursts, which were all attended to in conformance with the performance targets.
- The burst on the corner of Mulgrave Street and Thorndon Quay caused supply problems to businesses in Thorndon Quay. The repair was a protracted event, with the repair carried out on 25 April being reworked on the instructions of Wellington City Council staff. This caused repeat problems for the businesses in Thorndon Quay because of the eventual identification of a shut valve near Thorndon Pumping Station. This valve should have been open.
- The volume of work being carried out by third party contractors within the boundaries of Wellington City has increased dramatically during the month, with the result that the requests for mark-outs has more than doubled.

2. Water Quality

2.1 Routine Testing (A1)

The water quality was monitored and the appropriate laboratory tests were completed for April and May. There were 145 samples from the reticulation system tested for bacteriological compliance during April and 179 samples in May. Compliance for both months is 100 percent. Compliance for the year to date is 99.9 percent.

2.2 Water Tests Initiated by Customers (A2)

	April	May	Year to Date	Compliance Year to Date (%)
Number received	10	11	74	-
Within ability of Operations Network to control	3	3	26	-
Formal response within five days	10	11	73	98.6%

3. Customer Services

3.1 Counter and Other Office Services (E)

Information has been provided to customers requesting information by letter, telephone and over the public counter. A breakdown of enquiries received during

the reporting period is as follows:

	April	May
Counter enquiries	67 + 8 encroachments	76 + 12 encroachments
Proposals from other utilities	6	5
Plan records : New services recorded	13	18
Response time requirement compliance	100%	100%

3.2 Performance Standards (G)

April 2001

	Expected Compliance	Number of Activities	Completed to Standard	Complianc e Achieved
Miscellaneous				
A Quality complaints (samples)	85-95%	10	10	100%
A System Flushing (M1.4)	85-95%	22	22	100%
B Pressure and flow	85-95%	13	13	100%
B Loss of Supply (M1.5)	85-95%	10	10	100%
C Planned Shutdowns	95%	19	19	100%
C Unplanned Shutdowns	95%	48	48	100%
D Mark-outs	90-95%	48	40	83%
G Workmanship (joint audit results for April 2001)	90-95%	63	61	97%
O Meter Reading	100%	Achieved	Achieved	Achieved
Significant Leaks (M1.2 or o/e)				
H Burst Mains (2 O&E)	85-95%	4	4	100%
H Other	85-95%	-	-	-
Non-significant Leaks				
H Mains (M1.2) (Includes 3 O&E)	85-95%	16	14	88%
H Valves (M1.3)	85-95%	33	28	85%
H Hydrants (M1.4)	85-95%	61	59	97%
H Domestic Services (M1.5)	85-95%	188	175	93%
H Stopcocks (M1.6)	85-95%	315	299	95%
H Water Meters (M2.1)	85-95%	26	26	100%
L Damages (Variation)	85-95%	31	26	84%

May 2001

			Expected Compliance	Number of Activities	Completed to Standard	Complianc e Achieved
Misc	ellaneous					
Α	Quality	complaints	85-95%	11	11	100%

	Expected Compliance	Number of Activities	Completed to Standard	Complianc e Achieved
(samples)				
A System Flushing (M1.4)	85-95%	119	119	100%
B Pressure and flow	85-95%	16	16	100%
B Loss of Supply (M1.5)	85-95%	10	10	100%
C Planned Shutdowns	95%	36	36	100%
C Unplanned Shutdowns	95%	51	51	100%
D Mark-outs	90-95%	102	83	81%
G Workmanship (joint audit results for May 2001)	90-95%	63	61	97%
O Meter Reading	100%	Achieved	Achieved	Achieved
Significant Leaks (M1.2 or o/e)				
H Burst Mains (3 O&E)	85-95%	3	3	100%
H Other	85-95%	-	-	-
Non-significant Leaks				
H Mains (M1.2) (Includes 5 O&E)	85-95%	21	20	95%
H Valves (M1.3)	85-95%	32	23	72%
H Hydrants (M1.4)	85-95%	51	48	94%
H Domestic Services (M1.5) (1 O&E)	85-95%	230	206	89%
H Stopcocks (M1.6)	85-95%	361	337	93%
H Water Meters (M2.1)	85-95%	29	29	100%
L Damages (Variation)	85-95%	37	23	62%

It is noted that during the month of May the number of mark-out requests more than doubled.

Locates and Investigations (Wellington Regional Council Internal Target of Three Working Days)

	Ap	oril	May				
Locate stopcocks	54/70	77%	66/88	75%			
Leak locations	88/142	62%	69/1103	63%			
Flow tests	1/1	100%	3/3	100%			
Seepage/investigation s	0		5/5	100%			

Failures

	Jobs Fa 1-24 F		Jobs Fa 1-5 Worki	iled by ing Days	Jobs >5 Worki	Failed ing Days
	April	May	April	May	April	May
Burst mains				22		2
Stopcocks	1		8	2	7	1
Hydrants			1	6	1	3
Valves				1		
Mains				16	2	8

	Jobs Failed by 1-24 Hours		Jobs Failed by 1-5 Working Days		Jobs Failed >5 Working Days	
	April	May	April	May	April	May
Domestic services			6		7	
Water meters						
Damages	5	14				
Quality complaints						
System flushing						
Pressure and flow						
Loss of supply						
Mark-outs			8	19		
Workmanship						

Additional Work Carried Out

	April	May
Variations (exclusive of burst mains)	5	7
Service renewals	2	4

Burst Mains

There was a total of seven burst mains during the period. These were as follows:

Cnr Mulgrave Street and Thorndon Quay	5 April 2001
51 Spencer Street	14 April 2001
Cnr Mulgrave Street and Thorndon Quay	25 April 2001
17 Gloucester Street	30 April 2001
77 Inglis Street, Seatoun	19 May 2001
3 Nicholson Road (west end)	21 May 2001
Cnr Frankmoore Avenue and Phillip Street	28 May 2001

All burst mains during April were attended to within 30 minutes and repaired within eight hours.

All burst mains during May were overs and extras.

Overs and Extras

51 Spencer Street	Burst main	14 April 2001
Cnr Mulgrave Street/Thorndon Quay	Burst main	25 April 2001
89 Fyvie Avenue	Major repair to main	1 April 2001
Intersection of Redwood Avenue/		
Main Road, Tawa	Major repair to main	3 April 2001
19 Peterhouse Street	Major repair to main	9 April 2001
77 Inglis Street, Seatoun	Burst main	19 May 2001
3 Nicholson Road (west end)	Burst main	21 May 2001
Cnr Frankmoore Avenue and		

Phillip Street	Burst main	28 May 2001
Thorndon Quay/Mulgrave Street		-
intersection	April burst main	27 April 2001
Thorndon Quay/Mulgrave Street		
intersection	Alter main	7 May 2001
Cnr View/Hungerford Roads	Blown rider main	7 May 2001
Adelaide Road (golf course)	Major repair to main	17 May 2001
Claremont Grove	Major repair to main	25 May 2001
105 Hazelwood Avenue	Major repair to service	21 May 2001

4. Health and Safety

There were two other minor incidents during April. An employee twisted his knee while going up some steps. His doctor has approved three days off accident compensation from 2 May. Another employee has reported a recurring back injury (no time off).

There were no accidents or incidents reported during May. The two staff members previously on accident compensation returned to work during May.

5. Meters

A total of 1,447 city and high use meters were read and entered into the system by 23 April 2001. A total of 1,507 suburb and high use meters were read and entered into the system by 23 May 2001.

6. Pumping Stations, Reservoirs and System Control

6.1 General

Normal routine maintenance has resulted in the Wellington City system operating satisfactorily.

6.2 Control System

The control system continues to operate satisfactorily.

6.3 Thorndon Pumping Station

The pressure relief valve at Thorndon Pumping Station opened during a pressure surge and failed to close. Some minor local flooding occurred. The valve has been repaired and returned to service.

6.4 Townsend Road Pumping Station

New air valves were fitted to both pumps.

6.5 Broadmeadows Pumping Station

No. 1 pumpset has been removed for overhaul by the agent.

6.6 Broderick Road Pumping Station

Pumpset No. 2 was reinstalled after the bearing was replaced.

6.7 Electricity Revenue Meters

Assisted the contractor to install new electricity revenue meters at Russell Terrace, Hay Street, Epuni Street, Chapman Street and Westchester Drive Pumping Stations.

6.8 Mt Wakefield Repeater

The faulty battery supplying the radio repeater at Mount Wakefield has been replaced.

6.9 Co-ordination

- Liaised and consulted with Opus International Consultants Ltd with regard to the electromagnetic flow meter installation at Ngauranga, Burma Road, Mount Crawford, Melrose and Carmichael.
- Liaised with Spencer Holmes Ltd in relation to repairs to a reservoir at Newlands and the reservoir at Croydon Street.
- Assisted with the commissioning of the new Grenada North high level reservoir.

6.4 Maintenance Checks

Maintenance was carried out in April and May as follows:

April			
Round C	Round D		
Allington Road Messines Road Pumping Station Karori Park Montgomery Avenue Makara Road Verviers Street The Zoo Russell Terrace Lyndhurst/Chest Roads Mills Road Woodridge CV	Karepa Street Highbury Landfill Reservoir Landfill CV Rhine Street Beacon Signal Hill Townsend Road Miramar North Dargle Way Grenada CV Rangoon Heights Ngaio CV		
	May		
Round A	Round B		

April			
Round C	Round D		
Rajkot Terrace Nassau Avenue Mark Avenue Chapman Street Burnside Road Ruskin Road Broderick Road Broadmeadows High Pump Station Satara Street Kitchener Terrace Davies Road CV Birch Street CV Ohariu CV Glover Street CV Ironside CV	Huntington Street Warwick Street Hay Street Epuni Street Mapuia Street/Mt Crawford Sar Street Alexander Road Redwood Greyfriars Road Bell Road CV Webb Street CV Prince of Wales CV Vasanta CV		

7. Development

7.1 Development Statistics (F2)

Subdivisions	April	May	Year to Date
Construction plans approved (lots/units)	0	19	245
Scheme plans approved	32	41	391
Subdivisions cleared (lots/units)	86	89	858
Total subdivisions processed	65	87	679
Subdivisions processed on time	58	87	658
Response time compliance	89.2%	93%	96.9%

7.2 Development Projects

7.2.1 Churton North Reservoir

Some minor maintenance items are outstanding. These are currently being addressed with the consultant.

7.2.2 Westchester Drive Pumping Station and Rising Main

Some minor maintenance items are outstanding. These are currently being addressed with the consultant.

7.2.3 Subdivisions General Items

- Rossaveel Heights, Takapu Road, Grenada North. The conditions of subdivision have now been set. The applicant has agreed to provide a minimum of 25 m head at each point of supply. No dispensations will be allowed.
- ➤ 128 Weld Street, Wadestown. In April discussions were held with Regional Public Health and further correspondence was sent to Truebridge Callender Beach Ltd, the subdividers consultant, with copies sent to Wellington City Council management. No further correspondence has been received.
- Investigations are continuing into a subdivision at 130 Fraser Avenue, Johnsonville. This subdivision requires a firefighting main. Checks into network calculations and firefighting requirements are continuing in consultation with the New Zealand Fire Service.

7.2.4 Construction and As-built Plans

7.2.4.1 Construction Plans

Construction plans were considered for approval of the following subdivisions:

- ➤ 6 Reuben Avenue, Brooklyn (4 lots). Amendments to plans were requested on 10 April. Amended plans were received on 28 May and are currently under consideration.
- Rossaveel Heights Stage 3 (18 lots). These plans were approved on 31 May.
- ➤ 119 South Karori Road (1 lot). An amended plan reflecting the final position of the new main and relaying to the appropriate depth was submitted or approved on 24 May.

7.2.4.2 As-built Plans

As-built plans were considered for approval of the following subdivisions:

- Tamworth Crescent, Newlands (Bellevue Stage 4) (23 lots). These plans were approved on 3 April.
- ➤ 14 Glenmore Street, Kelburn (4 lots). These plans were approved on 18 April.
- ➤ 6 Gavaskar Place, Khandallah (3 lots). This as-built plan was received on 27 April. The plan as-built plan approved on 10 May 2001 and the subdivision cleared on 17 May 2001.
- ➤ 119 South Karori Road (1 lot). Remedial work was carried out, the asbuilt plan was approved and subdivision cleared on 31 May 2001.

7.2.5 Fire Services Recently Connected

There were no new fire service connections installed during April and May:

Month	Processed	Complying	Compliance
April	1	1	100%
May	4	4	100%

7.2.6 New Commercial Metered Services

There were no new metered services connected during April. The following new metered services were connected during May:

- > 80 Courtenay Place (50 mm) 8 May 2001
- > 211 Willis Street (20 mm) 26 May 2001

Month	Processed	Complying	Compliance
April	1	0	100%
May	2	1	50%

7.3 Building Development Appraisals (F1)

	Apr	April		May	
	Commercial	Domestic	Commerci al	Domestic	
Building consents	2	28	1	41	
PIMS applications	2	26	1	46	
Compliance with response tim requirement	e 100%	100%	100%	100%	

7.4 Land Information Memorandum (F1)

	April	May
Applications processed	48	51
Compliance with response time requirement	100%	100%

8. Capital Works

8.1. Main Laying

8.1.1 Contracts in Maintenance Period

The following pipelaying contracts are in the maintenance period:

- ► Bell Road Zone Improvements
- ➤ Karori South and Allington Road Zones Amalgamation
- Percival Street
- Oriental Terrace
- > Taranaki Street
- Tirangi Road and Lyall Parade

The maintenance period for the Cuba Street Contract has expired. The Contractor has been instructed to rectify some road surface defects before the maintenance retentions are released.

8.1.2 Tirangi Road and Lyall Parade

The new pipeline has been commissioned and the Contract attained Practical Completion on 25 May 2001. This Contract is now in the maintenance period.

8.1.3 Tanera Crescent, Brooklyn

The Contract for the replacement of the 150 mm asbestos cement main in Tanera Crescent was retendered with an extended Contract Period. Four tenders were received and a report has been prepared for Wellington City Council's approval.

There were no tenders received in the initial tendering period because of the tight timeframe specified and the significant amount of work currently being undertaken by contractors in the Wellington area.

8.1.4 Rex Street, Miramar

The Contractor is preparing to start the replacement of the 75 mm cast iron main in Rex Street.

8.1.5 Thorndon Quay and Central Business District Pipelines

Investigations have begun for replacing pipelines in Thorndon Quay and

Mulgrave, Bowen and lower Cuba Streets.

8.1.6 The Esplanade and Island Bay Pipelines

Investigations have begun for replacing pipelines in The Esplanade, Kellsmere Crescent, Breton Grove and Halifax Street in Island Bay.

8.3. Reservoirs

8.3.1 Kelburn Reservoir Replacement

Consultant Sinclair Knight Merz

Work completed > Design report accepted by client.

Awaiting response to application for Certificate of Compliance lodged with Wellington City Council.

Public complaints None

Health and safety No issues

Consultant's performance A good start was made on this project but delayed by

response to application.

Financial commitments First invoice awaited

Proposed work Following receipt of the Certificate of Compliance,

work will commence on the detailed design.

8.3.2 Wadestown Reservoir Replacement

Consultant Montgomery Watson Ltd

Work completed Supervision of construction continuing.

Consultant's performance Appropriate level of supervision is being applied.

Financial commitments Consultant's progress claim awaited. Supervision on

hourly rate basis.

Proposed work Supervision of completion, sterilisation and

commissioning of the reservoir.

Contractor McKee Fehl Constructors Ltd

Work completed

Reservoir structure complete and filled for water

test

➤ Valve chamber structure complete

Overflow drain (by separate Contractor)

Public complaints None

Health and safety No issues

Financial commitment Total work completed to 31 May 2001 - \$625,000

(estimate)

Proposed work > Complete water leak repairs to the reservoir

Valve chamber metal work

► Install electrical and control equipment

Prepare for sterilisation and cut-over

► Backfill and demolish existing reservoir

8.3.3 Grenada North High Level Reservoir

Consultant Truebridge Callender Beach Ltd

Work completed Supervision of commissioning continuing.

Consultant's performance Responding to commissioning issues.

Financial commitments Forecast Consultant's claim to completion - \$60,000

Proposed work Supervision of reservoir commissioning and final

reinstatement

Contractor Juno Civil Ltd

Work completed > Reservoir construction completed and successful

water test

Public complaints None

Health and safety No issues

Financial commitment Forecast Contract claim to completion - \$522,000

Proposed work > Flushing of inlet and outlet pipelines

- ➤ Reservoir disinfection
- Connection to reticulation
- ➤ Removal of old tanks
- Reinstatement

8.3.4 Eastern Suburbs Reservoir

A feasibility report has been prepared for Wellington City Council and is now undergoing final review. Investigations include land-ownership, chlorine residuals, preparation of a preliminary design brief, proposed pipework and site layouts.

Stuart Kinnear has been engaged to assist on land-ownership issues. In addition, we are seeking provisional landowner approval (from Wellington City Council's Parks and Gardens) prior to resource consent application.

The feasibility report will be submitted by 8 June 2001.

8.3.5 Southern Suburbs Reservoir

Investigations into the alternative sites for this proposed reservoir are proceeding. Work is concentrating on evaluation of the Rhine Street and Oku Street sites. Alternative sites identified in an earlier report prepared by Tse Group Ltd are being reviewed. Other possible sites on the eastern side of Island Bay have been identified and evaluated.

The assessment report will be submitted by 8 June. This will enable a selection of sites to be investigated in greater depth, including obtaining input from Parks and Gardens.

Strategy and Asset Group April/May 2001

Strategy and Asset Group Review of Operations for the Period Ended 31 May 2001

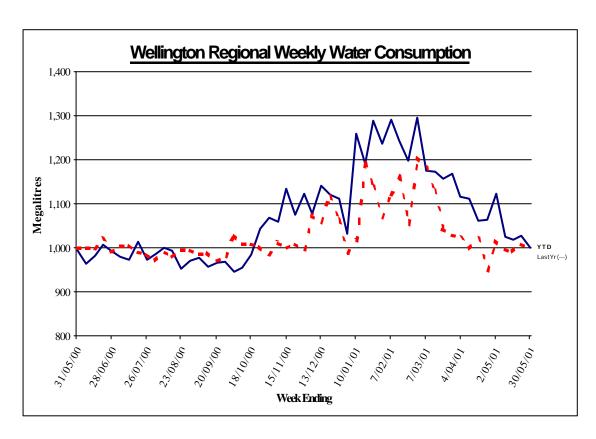
1. Items of Note

- Water integration issues continued during the period.
- The animal culling, using amateur hunters in the Wainuiomata and Orongorongo Catchments, concluded in April. Thirty-one animals were shot. A similar number were shot in the "hunt" in the previous year.
- Refurbishment of the Orongorongo/Karori main between Thorndon and Karori has been undertaken this financial year. The other section of the main that is in use and where the pipe is not concrete lined is between Randwick and Korokoro. Tenders will be called for refurbishing this section in the first quarter of the 2001/2 financial year. An amount of \$1.25 million has been allowed for this. Once this is completed all the pipes currently carrying treated water will have been lined.
- Negotiations are continuing with Hutt City Council to establish a price for an easement that includes use of the Wainuiomata Tunnel for their sewer pipe. The parties are still a long way apart. This situation has arisen because of the shortage of comparable information to assist in establishing a value.
- Following a Councillor request, an options report for supplying water to the Kapiti Coast was prepared. A copy was attached to the previous committee report. In late May the Kapiti Coast District Council considered the report and is to request further information from the Regional Council. A separate report to the Committee considers the issue in more detail
- Construction has started on a new chlorine building at the Gear Island Water Treatment Plant. There has been an architectural input into the design, so it is sympathetic to the building constructed in the 1930s.
- Analysis of the effectiveness of the summer water conservation television advertisement has been completed. A presentation will be made at the Committee meeting.

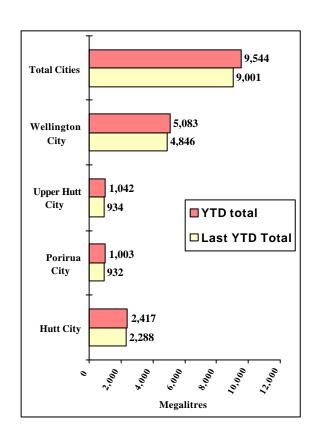
2. Sales Volume

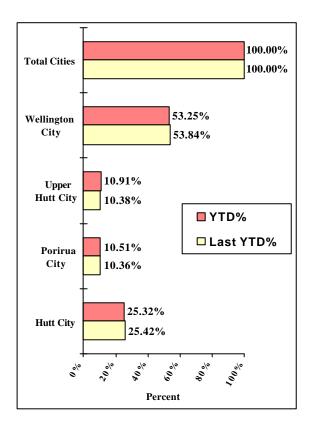
Water Sold Over the Last 12 Months

Charts outlining sales volumes are on pages 31 and 32.



Water Sold from 1 April 2000 to 31 May 2001





3. Asset Management

- A review of the June 1998 Asset Management Plan has commenced but no significant changes will be made until the 2001/2 year.
- Hansen Australia has been unable to produce a viable depreciation report using the "Crystal" reporting tool. They have asked Hansen in the United States to build a report directly within the Hansen database. This is expected before the end of June. In the meantime 2000/1 end of year reports will be run using outdated reports, which are cumbersome but adequate. Work on adjusting some asset valuations is being carried out in a test environment, prior to running 2000/1 depreciation.
- At 31 May the forecast expenditure on capital works is \$3.493 million, against a budget of \$4.047 million. Refurbishment of the Orongorongo/Karori main between Thorndon and Karori is almost complete, installation of the new fluoridation equipment at Gear Island is complete and the new branch main to the Plateau Reservoir has been commissioned. Stage 1 of a computer hydraulic model of the distribution network is substantially complete. The next stage is to calibrate this model against the system.
- Survey work and subdivision plans for Karori Reservoir land are still delayed by uncertainty over ownership of the streambed. A legal opinion is to be sought.
- Issues associated with our application to take water from the Moera Aquifer are being worked through with IBM.

- Praft conditions for the new consents to abstract water from the Hutt, Wainuiomata and Orongorongo Rivers are close to being finalised. It is expected that the consent will be issued in July.
- Work on reviewing the Sustainable Yield Model has begun. This model will be refined and used in conjunction with the hydraulic model to improve our understanding of the potential capacity of the system.
- A number of Transit New Zealand highway upgrading proposals have been responded to, so as to ensure protection for our water mains. Relocation of a section of the Pukerua Bay supply main is required in conjunction with the current realignment work between Plimmerton and Pukerua Bay.
- The annual management review of both the environmental and quality systems will be conducted in June.

4. Quality Assurance

Statistical analyses of turbidity readings to demonstrate compliance with the *Drinking-Water Standards for New Zealand* rule that requires turbidity to be less than 0.5 NTU for 95 percent of the time have been carried out. The results for April and May are set out below. The percentage of the time turbidity is less than 0.1 NTU has also been calculated, as this standard will apply from 2005. Strictly speaking, with the advent of the new *Drinking-Water Standards for New Zealand 2000*, these requirements apply to each filter and must be assessed on a daily basis. However, the monthly analysis of each plant gives a useful indication of the standard of compliance.

Percentage Compliance	Turbidity <0.5 NTU		Turbidity <0.1 NTU	
Plant	April	May	April	May
Te Marua	100%	100%	99.26%	81.52%
Wainuiomata	100%	100%		100%

The >0.2 NTU change within 10 minutes rule has been tested for both plants. This rule identifies "spikes" in the turbidity results, which have the potential to carry protozoa into the treated water. The results are as follows:

No. of Exceedances	April	May
Te Marua	Nil	Nil
Wainuiomata	1	Nil

These rules are intended to reduce the risk of *Giardia* and *Cryptosporidium* passing through the plant. The plants incorporate "slam shut" valves so that any water that does not comply with the *Drinking-Water Standards for New Zealand* is not normally delivered to the customers. With the advent of the new *Drinking-Water Standards for New Zealand 2000*, these requirements apply to each filter and must be

assessed on a daily basis. However, the monthly analysis of each plant gives a useful indication of the standard of compliance.

5. Marketing

5.1 Summer Water Conservation Campaign

Research into the effectiveness of the conservation campaign was completed in late April. Results show that recognition for the advertising was slightly up from last year (67 percent). Water use relative to weather conditions during the summer was encouraging. A presentation of results is now being compiled.

5.2 Other Activities of Note

- Commenced planning the 2000/1 Report of Business Activity for The Water Group.
- Press releases regarding repositioning of the Gear Island artesian water tap (Same water, different tap, 10 April) and closure of Wainuiomata Water Treatment Plant in May because of lack of water (Trout shut treatment plant, water supplies still OK, 1 May) written and supplied to Communications.
- A communication strategy paper for water supply was written for Dave Benham.
- Development of content for a new brochure covering the wholesale water system. This will replace four brochures created between 1990 and 1994.
- Further work to update the water supply section of the Wellington Regional Council Internet site.
- Involvement with Environment Division regarding their Take Action programme (formerly Learnwell) covering water conservation.

7. Projects Undertaken by Engineering Consultancy for Strategy and Asset

Big Huia Pipeline Joints

All joints on the Big Huia intake pipeline have been cleaned and wrapped.

Te Marua Lakes Emergency Action Plan

Proposed amendments to the *Te Marua Lakes Emergency Action Plan* are being reviewed.

Wainuiomata Water Treatment Plant Slam-shut Scour.

Installation of the scour valve and pipeline immediately upstream of the slam-shut valve is almost complete.

Waterloo and Gear Island Fluoride Dosing

The new fluoride dosing system at Waterloo and Gear Island have been commissioned and are operating satisfactorily.

Waterloo Water Treatment Plant Vibration and Noise

Sinclair Knight Merz Ltd has been commissioned to design and supervise the installation of remedial works to reduce the vibration in the building. The vibration is a problem when the Wellington pumps are operating at high speed.

Refurbishment of the OK Main, Thorndon/Karori

The Contract for cement mortar lining the OK main is complete. Arrangements are being made to commission the main.

> Refurbishment of the OK Main, Petone

Contract Documents are being prepared for the refurbishment of the OK main between Hutt Park and Korokoro. The pipe will be either cement mortar lined or slip lined with PE pipe.

Orongorongo Pipeline Replacement at George Creek

Approximately 120 m of new pipe has been installed adjacent to George Creek in the Wainuiomata Water Collection Area. Arrangements are being made to connect this new pipe into the Orongorongo pipeline. This replaces a section of small diameter pipe in this line.

Plateau Reservoir Inlet Main

The new inlet main to Upper Hutt City Council's Plateau Reservoir has been commissioned.

Johnsonville Pumping Station Switchboard

Flow and pressure tests have been carried out on the Johnsonville Pumping Station pumps. A report is being prepared recommending replacement of the switchboard and assessing the efficiency of the existing pumps.

Ascot Park Pumping Station

Investigations are continuing into a proposed pumping station to improve the supply to Ascot Park Reservoir during periods of high demand.

Kaitoke Pipeline Either Side of Strainer Building

The concrete pipeline between the Kaitoke Flume Bridge and the No. 2 Tunnel entrance has been repaired. Further work is planned on some minor leaks on this pipeline.

Kaitoke Pipeline on Haywards Hill

Opus International Consultants Ltd has provided a draft report on the effect of the proposed State Highway 58 realignment on the ground stability along the route of the Kaitoke pipeline.

Hutt Estuary Bridge Pipelines

Flexible couplings have been installed on the two pipelines crossing the Hutt Estuary Bridge. This allows the pipelines to move with the bridge in a seismic event. Arrangements are being made to strengthen the holding down bolts on the pipe supports.

Wainuiomata Main Valve Chambers

Investigations have begun to rationalise the pipework within the Gear Island valve chamber on the Wainuiomata main. This will remove unused pipe, reducing the risk of contamination.

➤ Te Marua Towers Valve Shut-off

Pneumatic cylinder actuators are being installed on the lake inlet and outlet valves.

Pipe Holding Down Straps in Tunnels

Pipe securing straps are being designed for installation in the Kaitoke pipeline tunnels.

Flow Meters

The cause of an off-set error in the Ngauranga interconnection meter reading is being investigated.

Gear Island Sewer

A pumped sewer system is being designed for Gear Island Water Treatment Plant. This system will connect to the Hutt City Council sewer. It will replace an existing septic tank.

Review of Seismic Repair Stock

A review is being undertaken of the quantity of stock held for repair of water distribution pipelines following a major seismic event.

Engineering Consultancy Group April/May 2001

Engineering Consultancy Group Review of Operations for the Period Ended 31 May 2001

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 Taranaki Street Pipeline

This pipeline is complete and commissioned. However, additional work has been requested in Webb Street to replace a major trunk main valve and in Courtenay Place to alter the connection of the main with the main in Courtenay Place.

3.3 Tirangi Road and Lyall Parade

Work is now complete on replacement of the asbestos cement mains. Assistance was required from the Wellington Regional Council's Distribution Section to carry out a cut-in at Coutts Street.

3.4 Rex Street, Miramar

A Contract has been awarded to lay an additional main in this street to supplement the existing 75 mm cast iron main. Investigations were carried out, which established that the existing main was in a satisfactory condition to continue in use as a rider main to supply one side of the street.

3.5 Tanera Crescent, Brooklyn

Tenders were invited for this water main replacement. None were received because of the very tight timeframe for construction. A new invitation was issued with a delayed start and satisfactory tenders were received.

Work will commence early in July.

3.6 Thorndon Quay

Approval has been received and design work commenced to replace a 200 mm asbestos cement main for the full length of Thorndon Quay. This will be a challenging project, as Thorndon Quay has already had significant cable laying operations in recent months. Included in the Contract are short sections in Mulgrave and Bowen Streets.

3.7 The Esplanade, Island Bay

This project involves replacing water mains in various streets in Island Bay and Kingston. Preliminary investigations have been carried out.

3.8 Grenada North High Level Reservoir

This permanent reservoir, 160 m³ capacity, will replace the Grenada North temporary tanks. The site is at a higher level to the east of Nassau Avenue on land that has recently been transferred from TransPower to Wellington City Council. The intention of this reservoir and associated pipework is the second stage in the upgrade of the Grenada North water supply following the contamination incident in early 1998.

The reservoir has been completed and tested. Arrangements are under way for commissioning.

3.9 Wadestown Reservoir

Montgomery Watson Ltd was engaged for the design of a replacement reservoir, capacity 1,800 m³, along with the obtaining of resource consents necessary for the completion of the reservoir on the Town Belt, as well as for access across the Town Belt.

The reservoir structure is complete and filled with water for testing.

The Contract to insert a pipeline to convert the old rising main to an overflow is complete.

3.10 Eastern Suburbs Storage

There is a storage deficit in the Low Level Zone of 10 ML. This was identified and reported on at the time of approval of the Macalister Park 20 ML Reservoir. Of this storage, approximately 7 ML is required in the Eastern Suburbs (Miramar) and 3 ML in the Southern Suburbs (Island Bay). A report on the preferred site has been complete and submitted to Wellington City Council for approval to proceed to the next stage.

3.11 Southern Suburbs Reservoir

A report assessing the various potential sites for this reservoir has been completed. This includes additional sites not previously identified on the east side of Island Bay.

3.12 Kelburn Reservoir

A commission has been awarded to consultants for the investigation and design of a new reservoir, which will replace two existing reservoirs that are adjacent to the Karori Wildlife Sanctuary. The design report has been completed and approved. Application has been made for a compliance certificate for existing use rights.

3.13 Water Services Agreement

Under the new agreement, which came into effect on 1 July, the group is carrying out similar functions as were required under the Facilities Management Contract. These are as follows:

- Building consents
- Subdivisions
- > System records
- Counter service
- New services and fire services

The new agreement also contains a performance related bonus and penalty system related to response times. To date, the performance targets have been met.

4. Other Projects

4.1 Puketiro Bridge

This small bridge replaces an existing ford on a forestry access road. Construction is complete and the bridge is available for traffic.

4.2 Karori Wildlife Sanctuary

The scour valve for the Upper Dam has now been installed and operates satisfactorily. This needs to be operated in heavy rain, to prevent the water level behind the Upper Dam rising significantly. Until the sanctuary land formally passes out of Wellington Regional Council ownership, operation of the valve is the responsibility of the Distribution Section.

5. Staff

During the period Phil Cook, Senior Draughtsperson, accepted a position in the Flood Protection Department.

Phil's position has been filled temporarily by Diane Shirer, who worked for many years in this group in the 1980s.

Matt Dixon has resigned to travel overseas.

6. Plan 10,000

The plan numbering system dates back to Plan No. 1, Karori Reservoir, drawn in 1875. To mark the completion of Plan No. 10,000, a special function was arranged. Plan No. 10,000 is an electronic plan of the water mains in the Region, with automatic links to the various detailed system schematic plans. This will be very critical to the operation of the system.

Laboratory Services April/May 2001

Laboratory Services Department Review of Operations for the Period Ended 31 May 2001

1. Items of Note

- Resource Investigations' shellfish monitoring programme was the single major contributor for the apparent larger than normal operating expenditure this period. Expenses for the subcontracted work were met in May from funds accrued and banked over the previous five months.
- Our quotation was submitted to the Mangaroa School for their Contract offering water supply monitoring and treatment plant maintenance over the next year. This Contract has been subsequently amended and reoffered to accommodate late extras and additions.
- Warren Matthews, Chemistry Laboratory Technician, resigned on 27 April and departed for greener pastures across the ditch. He will be missed but we are well pleased with his replacement, Ramzi Brikha, who commenced his six month contract on 14 May.
- As part of the planned Laboratory office upgrade the telephones and fax machine have been tuned into the new and improved Mabey Road PABX communication system. In addition, the Laboratory emergency alarm has been upgraded from what was a basic evacuation panic button to an externally monitored alarm connected to the security system.
- Following the demise of our aged centrifuge we intend purchasing a new model to be used mainly for concentrating *Giardia/Cryptosporidium* samples. The replacement has been kindly 'loaned on approval' and has proved satisfactory.
- We now have the report from the occupational hygienist engaged to assess and evaluate our laboratory acid cleaning practices. Although the hygienist indicates our traditional acid cleaning practices are still commonly used in other laboratories, he has endorsed recent changes that have been made as positive steps, with recommendations toward even more user friendly alternatives.

2. Business Summary

2.1 Quality

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

2.2 Health and Safety

There were no accidents or incidents during this period. One staff member remains off work recuperating from a kidney operation on 30 April.

Plantation Forestry April/May 2001

Plantation Forestry Department Review of Operations for the Period Ended 31 May 2001

1. Log Harvest Contract

Following an extremely good first quarter both demand and prices collapsed in April and have only made marginal recoveries since.

In reaction to the significant price drop and faced with a closure of the Eurocel sawmill in Upper Hutt, the logging crews were moved to the more difficult blocks to be felled as this would limit the build-up of logs on the skid sites. Arrangements were made to sell to more distant mills in an effort to dispose of the product but in the event only one load was sold to Mitchpine at Koputaroa. Currently Renalls at Masterton are not accepting oversized pulp logs and over 500 tonnes remain on the skids. Other options for disposal are being investigated, including export to India.

April processing produced 5,101 tonnes for an income of \$45,760 and May 5,666 tonnes for \$45,714

Recent grade outputs have been:

April (whole month)

Grade	Tonnes	%
Pruned Domestic		
Pruned Export		
Partial Pruned	62.4	1.22
S/A Grade	598.67	11.73
L Grade	366.17	7.18
R Grade	54.65	1.07
K Sawlog	747.46	14.65
K Rough	1,029.78	20.18
Pulp	1,769.41	34.68
O/S Pulp	473.18	9.27
Other		
	5,101.72	

May (whole month)

Grade	Tonnes	%
Pruned Domestic	0	0
Pruned Export	0	0
Partial Pruned	0	0
S/A Grade	892.42	15.75
L Grade	318.13	5.61
R Grade	246.54	4.35
K Sawlog	194.54	16.14
K Rough	1105.18	19.50
Pulp	1992.68	35.16
O/S Pulp	0	0

Grade	Tonnes	%
Xport Pulp	135.79	2.40
Other	61.64	1.09
Total	5666.93	

Progress on the blocks adjacent to the walkway have been relatively good with block 14/01 over 50 percent complete, block 15/02 completed and harvesting of block 15/01 underway. The walkway has been obstructed on weekdays but the stays for the haulers working blocks 14/01 and 15/01. A "stop/go" man has been employed on the walkway but, with the onset of winter, not many users have been seen.

The Madill Hauler is to move to block 22/01 before returning to complete block 14/01 and the harvest of the flats adjacent to the walkway in block 15/01 should be completed prior to the school holidays which commence on 29 June. This will allow free access through the holiday period with a weekday closure above Ladle Bend to be reimposed for about a month while block 14.01 is completed.

The only remaining blocks that may effect access to the walkway are 17/02 and 20/01, which are behind Summit Yard. These blocks will not be harvested until the weather improves and any potential effect on walkers should be a right angle crossing of the walkway in the same manner as was used to access the river flats.

Although revenue is down and clearly budget returns have not been achieved it should be remembered that the budget was based on logging being completed by the end of June 2001. This has not occurred and it is estimated that around 30,000 tonnes remain above Ladle Bend and around 7,000 tonnes over the river below commission Siding. This could produce further royalties of around \$740,000, which will appear in later years.

Two bids have been received for the forthcoming harvest contract. At present analysis of the bids is underway. It is hoped that Council can be advised of the successful tenderer at the meeting.

2. Silviculture Contracts

Four hundred and thirty-four hectares of a total 515.8 hectares of the current year's Contract have been completed. It is anticipated that all the contracts will be completed by 30 June.

Planting was programmed to commence on 19 June.

3. Plantation Forestry Operations

The drought is now well and truly over and rain is falling on a regular basis. It is probably fair to say that there is still a moisture deficit but this is being overcome quickly. The weather after turning cold and promising a more "normal" winter has warmed up again with only occasional "southerly busters" dropping the temperatures.

Biosecurity carried a 1080 drop in the Puketiro and Whakatikei Forests in mid-June. Although harvesting is due to commence in early July, there was sign of possum damage in the Battle Hill block that required early treatment. The treatment of the surrounding area will inhibit reinfestation.

Upper Hutt City Council has abandoned its plans to construct a reservoir on Council land in the Maymorn block. I understand that difficulty in negotiating a suitable access agreement with Tranz Rail led to the rethink of the plan.

Negotiations are continuing with Transit New Zealand for the acquisition of part of the Kaitoke block for a realignment of State Highway 2.

The land purchase settlement at Plateau mentioned in the last report has now been completed and Council benefited by some \$17,000

4. Forest Access

Because of the dryer than usual weather, forest access is good to all working areas. Only Maungakotukutuku remains as a problem.

The rain has presented some difficulties with the tandem steer trucks operated by Burling Transport. These vehicles are experiencing traction problems on the main exit road from Pakuratahi East. The problem only occurs after rain. While it is dry or raining it is okay, but as it becomes half dry the road becomes greasy and some vehicles have stalled. A close watch is being carried out and remedial work may be necessary if the problem continues.

In preparation for the new harvest contract the upgrade of the route through Rallywoods continues. It is anticipated that the whole route should be completed by the end of June. While the machinery is in the area, it is proposed to carry out some curve easement to reduce the travelling time of the logging trucks. The journey from the MOT block to the Totara Park gate of Valley View Forest is in excess of 23 km. This length of journey at reduced speed will influence the overall utilisation of the trucks and thus impact on costs.

5. Market Trends

Pruned logs are still holding, with minor changes to export grades as a result of exchange fluctuations. Minor reductions in some domestic prices have occurred but of more concern has been the withdrawal of the market for oversized pulp and the rough grade that Renalls purchase. The rough grade has recently come back on line but oversized pulp remains a problem.

Fletchers have a contract to export Marubeni bundled pulp. This returns \$38 per tonne compared to \$35 for domestic pulp. As cartage is \$1 more expensive to the Port, the effective margin is reduced to \$2.

The "experts" seem to think the worst is over and modest increases can be expected as contracts are renegotiated.